

SUMMER 1969

(FOR JUNE, JULY AND AUGUST)
Next issue September 1, 1969

radio amateur

callbook

magazine

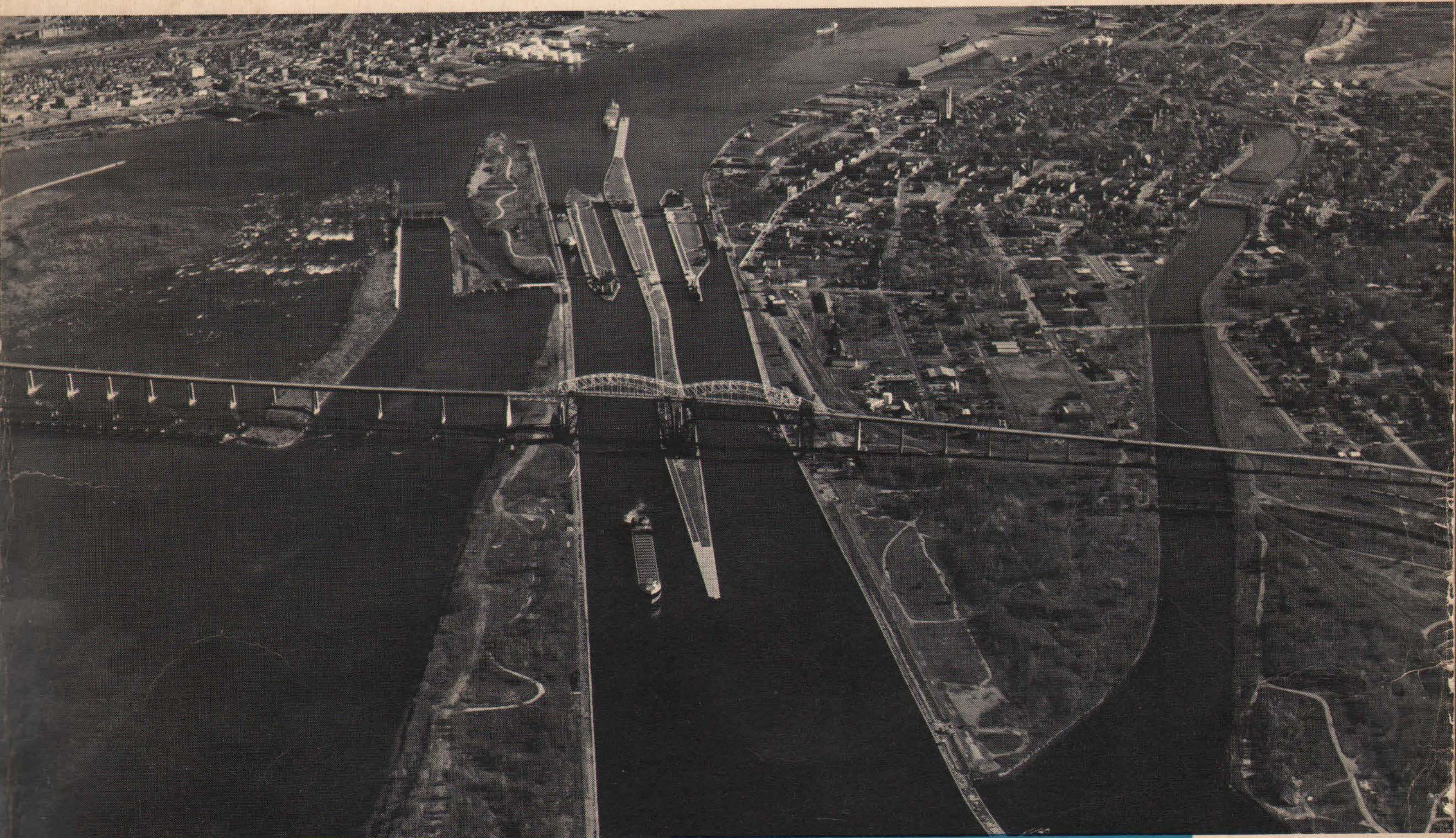


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SOO LOCKS, SAULT STE. MARIE, MICHIGAN

MICHIGAN, the 26th State, first settled in 1668 at Sault Ste. Marie. Site of the Soo Canals, originally opened in 1855, now one of the world's most heavily used waterways as well as an important rail and shipping point. The Wolverine State has the longest fresh water shoreline, bordered by four of the five Great Lakes, Erie, Huron, Michigan and Superior. Detroit, the State's largest city, is the home of the automobile industry in the United States.

There are 10,871 licensed radio amateurs in Michigan.

The only publications listing licensed radio amateurs throughout the world.....Since 1920

in this issue

- 287,063 U. S. Licensed radio amateurs, including 3,570 new licenses issued by FCC since the Spring 1969 issue.
- Over 21,000 changes in listings.
- STOP PRESS—late QTH's.
- CLASS OF LICENSE on each call.
- THEN & NOW—Call letter changes.
- SILENT KEYS deleted from this issue.
- QSL MANAGERS AROUND THE WORLD.
- Radio Amateur prefixes of the world, with map, A.R.R.L. countries list.
- Great circle bearings, postal information, standard time charts, codes, "Q" signals . . . and many other features.

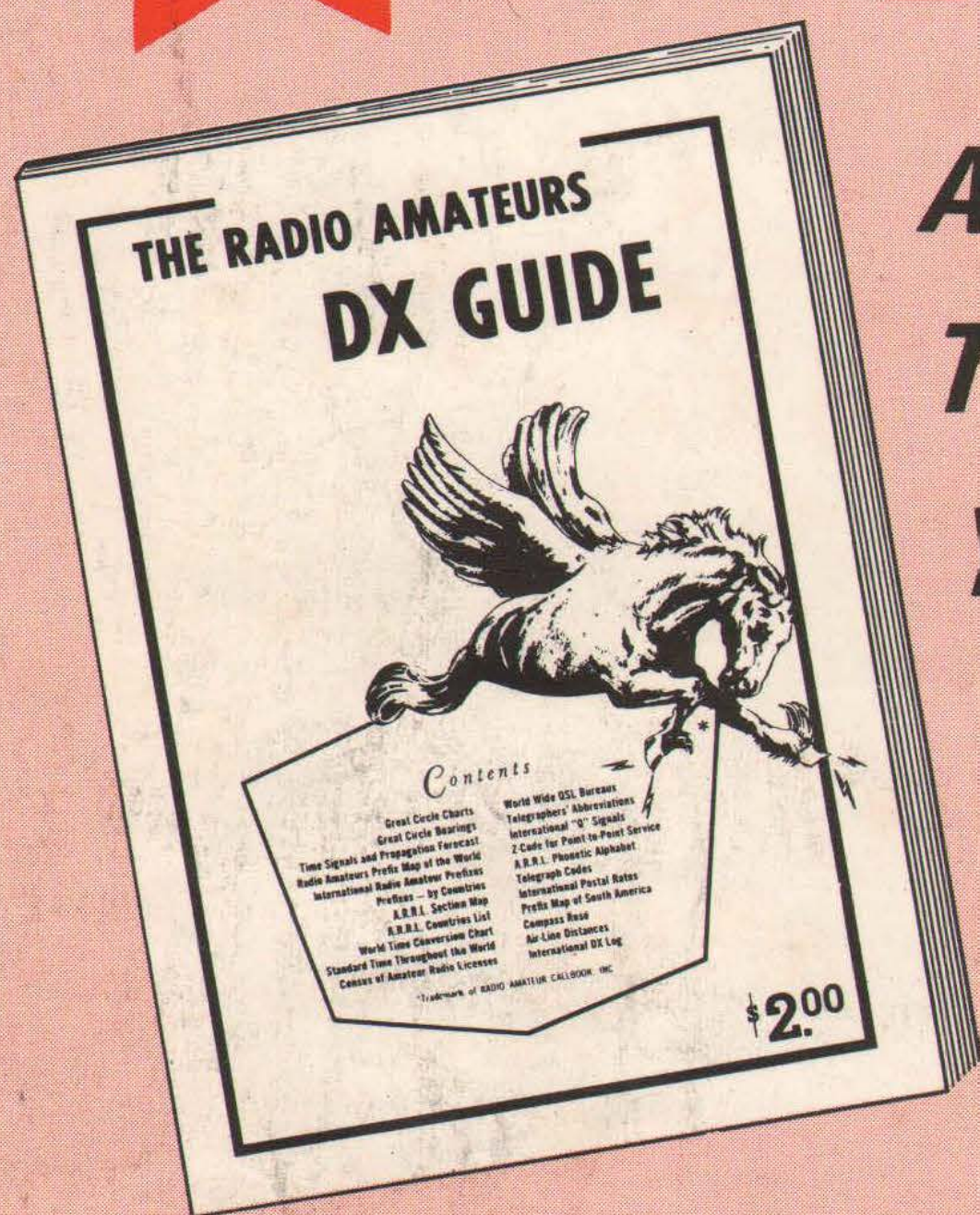
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64 pages, size 8 3/4" x 12"

The DX Guide is a handy reference manual containing valuable information for every radio amateur — especially the DXers.

JUST LOOK AT THIS TABLE OF CONTENTS

INTERNATIONAL DX LOG — prefixes of all countries that qualify for DXCC. Ample space provided to make a permanent record of all DX stations worked; showing date, call letters, frequency and whether a QSL card has been sent or received.

WORLD MAP SHOWING RADIO AMATEUR PREFIXES — an outstanding map, 15" x 10".

GREAT CIRCLE MAPS — centered on New York City, San Francisco, Calif., Seattle, Wash., Washington, D.C., and the center of the United States.

GREAT CIRCLE OUTLINE CHART OF THE UNITED STATES — determine the great circle bearing between any two points in the United States with this map.

PREFIX MAP OF SOUTH AMERICA — showing the number or letter designating all sections and countries.

ARRL SECTION MAP — of the U.S., check off the sections you have worked during ARRL contests.

GREAT CIRCLE BEARING TABLES — each printed on a separate page for easy removal of the one nearest your location. 293 bearings are shown to the nearest degree on each table for: Atlanta, Ga., Boston, Mass., Buffalo, N.Y., Chicago, Ill., Columbus, Ohio, Denver, Colo., Detroit, Mich., Houston, Texas, Jacksonville, Fla., Kansas City, Mo., Knoxville, Tenn., Los Angeles, Calif., Louisville, Ky., Miami, Fla., Minneapolis, Minn., New Orleans, La., New York City, Norfolk, Va., San Francisco, Calif., Seattle, Wash., Washington, D.C., and the geographical center of the United States.

GREAT CIRCLE BEARINGS IN THE UNITED STATES — between 39 large cities in the U.S.A., — a valuable aid for VHF work as well as handling traffic through QRM.

GREAT CIRCLE BEARINGS TO WORLD WIDE METROPOLITAN AREAS — exact bearings to the nearest degree from 39

cities in the U.S.A., to 39 metropolitan areas throughout the world.

TIME CONVERSION TABLE — determine the time in any time zone in the world. Also know whether it is today or tomorrow at the place heard or worked.

TIME THROUGHOUT THE WORLD — time zones of most countries. Explains the International Time Zone System.

AIR LINE DISTANCES IN THE UNITED STATES — arranged in alphabetical order between 39 cities of the United States.

POSTAL INFORMATION — rates for QSL cards, first class and airmail letters to foreign countries. Also the number of international reply coupons for the proper postage for a return airmail letter is shown for most countries.

ARRL COUNTRIES LIST — official list of ARRL DX contest and DXCC. Courtesy ARRL.

DX CONTEST AND FIELD DAY LOG — can be used either for a DX contest or the annual ARRL field day.

COMPASS ROSE — for that rotary beam indicator, graduated for 360 degrees. One with white background and no print on the reverse side of the sheet. The other has a black background.

PLUS THESE INTERESTING FEATURES — INTERNATIONAL "Q" SIGNALS; WORLD WIDE QSL BUREAUS; "Z" CODE FOR POINT TO POINT SERVICE; "Q" SIGNALS AND ARRL PHONETIC ALPHABET; TELEGRAPHERS ABBREVIATIONS; DX OPERATING CODE; MORSE CODE.

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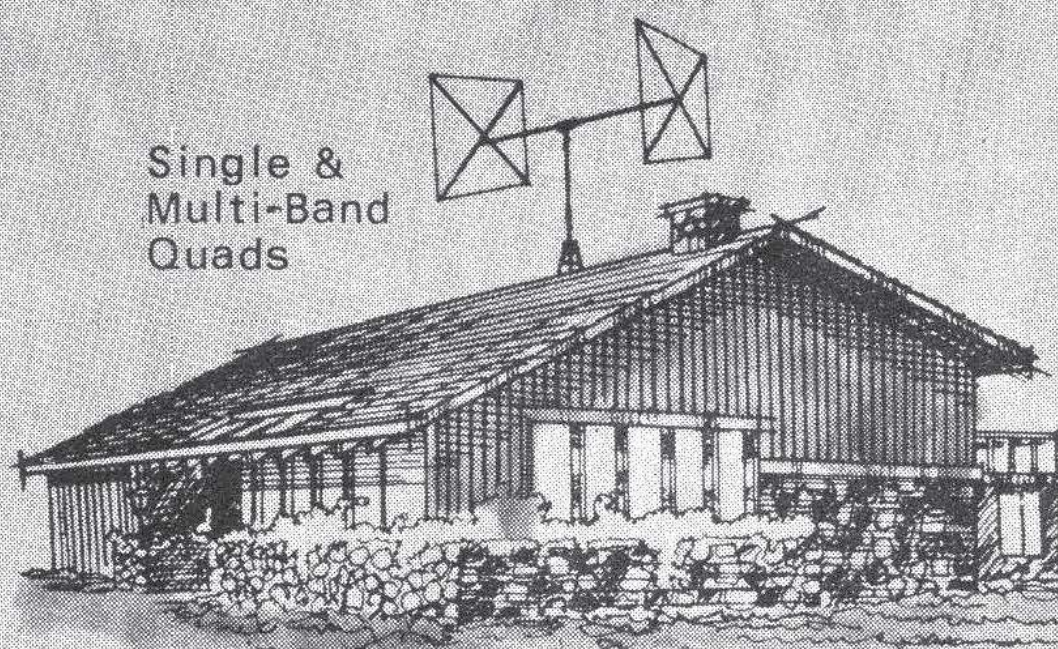
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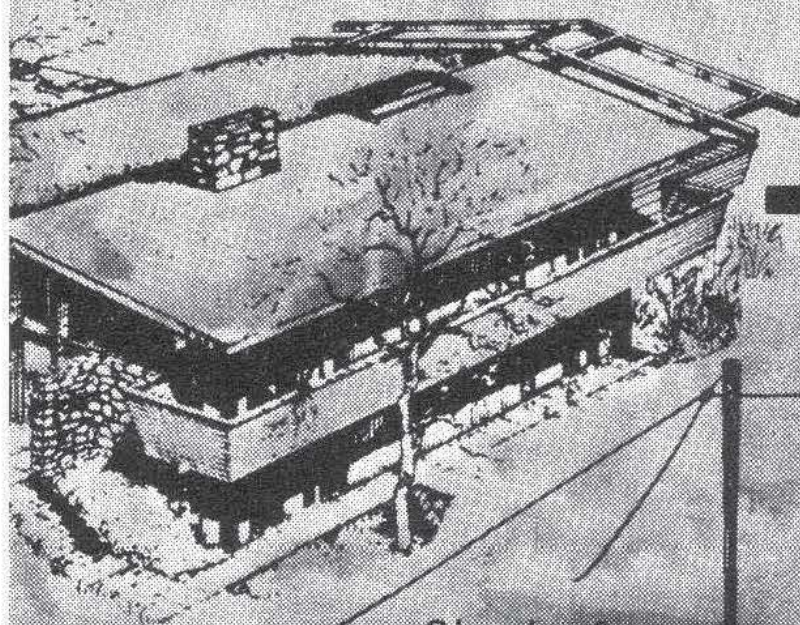
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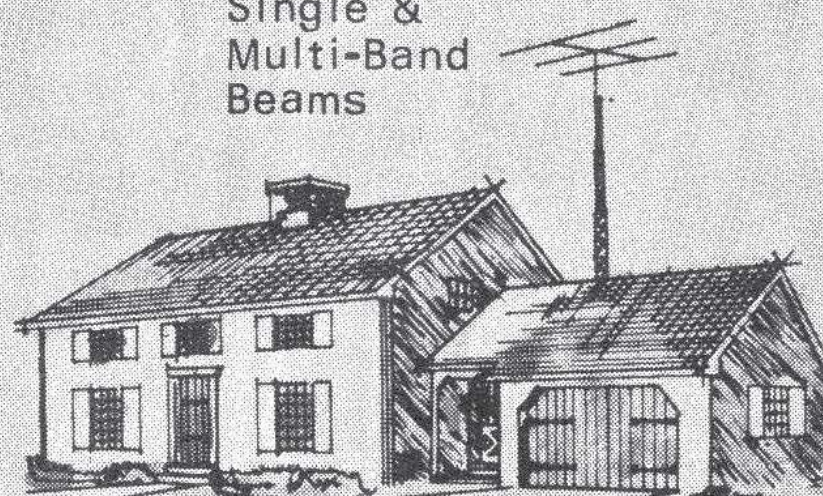
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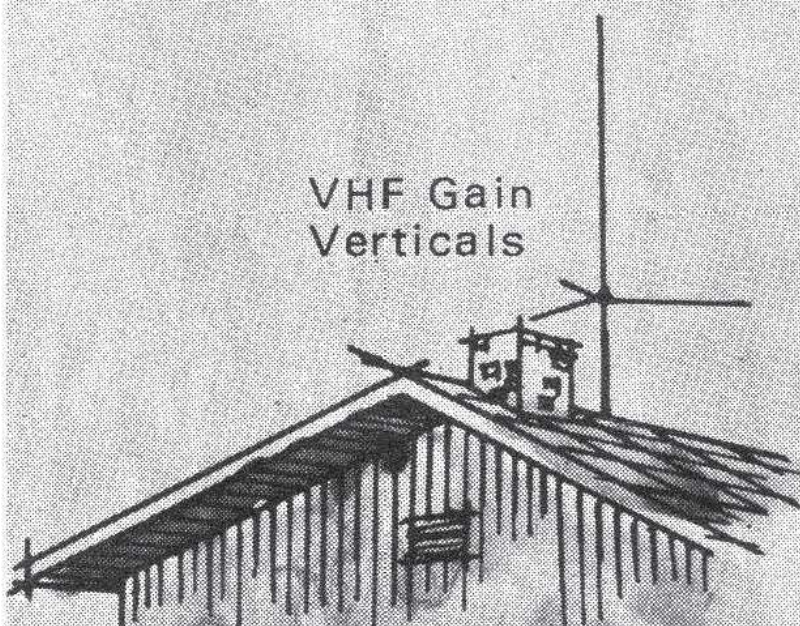
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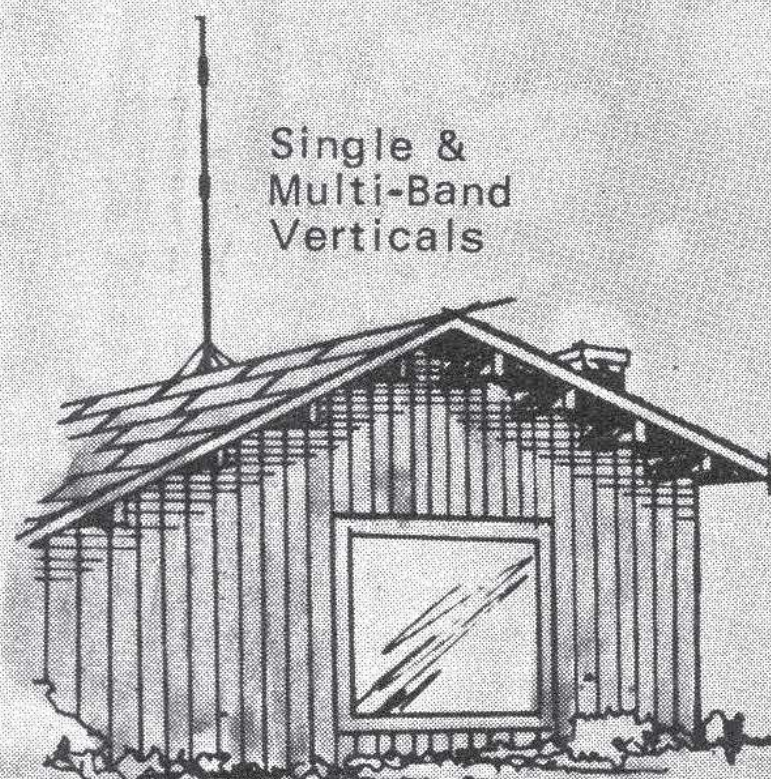
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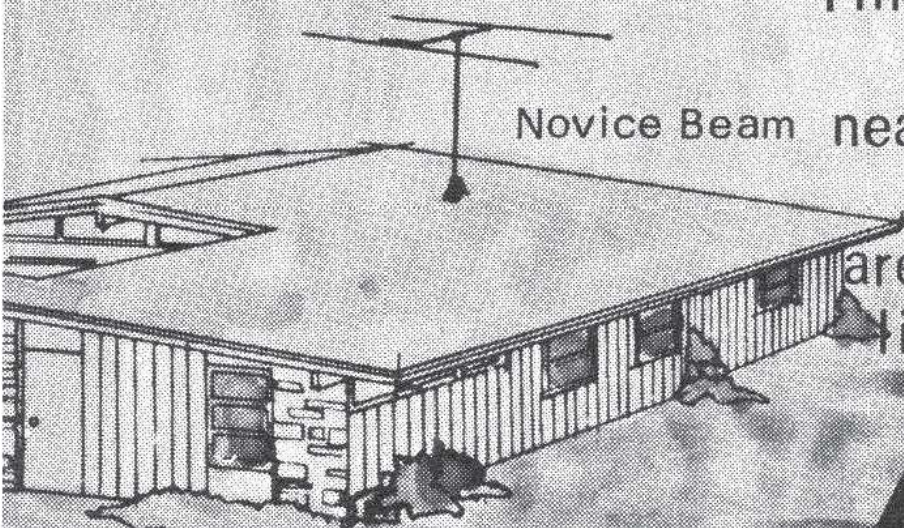
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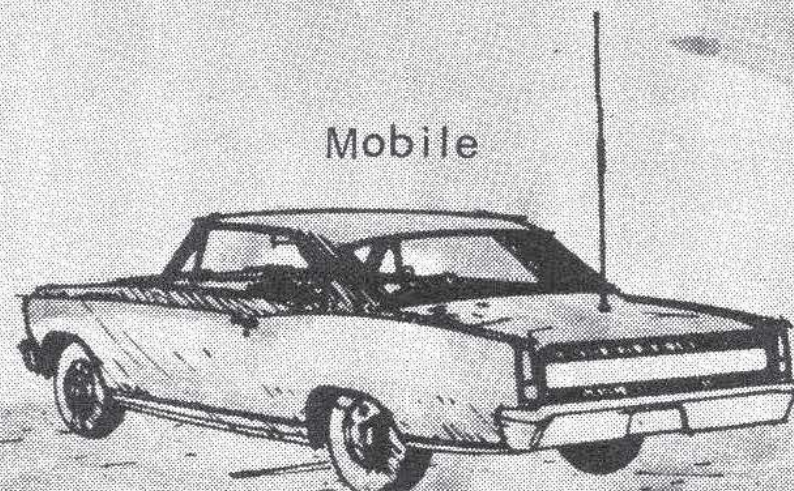
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Novice Beam



Mobile



RADIO AMATEURS OF THE U. S. A.

VOLUME 47
NUMBER 2

ALL K AND W CALLS

SUMMER 1969

CONTENTS

A. R. R. L. COUNTRIES LIST	8
A. R. R. L. PHONETIC ALPHABET	18
CENSUS OF AMATEUR RADIO LICENSES in the U.S.A. by classes	25
CENSUS OF AMATEUR RADIO LICENSES throughout the world	5
F. C. C. EXAMINATION POINTS	18
GREAT CIRCLE BEARINGS in the United States	12
GREAT CIRCLE BEARINGS CENTERED ON CENTER OF UNITED STATES	16
GREAT CIRCLE BEARINGS CENTERED ON NEW YORK, N. Y.	26
GREAT CIRCLE BEARINGS CENTERED ON SAN FRANCISCO, CALIF.	28
GREAT CIRCLE CHART OF THE WORLD CENTERED ON THE UNITED STATES	17
INTERNATIONAL POSTAL RATES	15
"Q" SIGNALS	24
QSL MANAGERS	623
RADIO AMATEUR PREFIXES arranged alphabetically by prefix	6
RADIO AMATEUR PREFIXES arranged alphabetically by country	4
RADIO PARTS & EQUIPMENT DEALERS . . . AT YOUR SERVICE	629
SILENT KEYS deleted in this issue	612
STANDARD TIME throughout the world	21
STOP PRESS late mail QTH's	613
TELEGRAPHER'S ABBREVIATIONS IN CURRENT USE	10
TELEGRAPH CODES	7
THEN & NOW, Call letter changes	616
WHERE TO BUY	632
WORLD MAP SHOWING RADIO AMATEUR PREFIXES	23
WORLD TIME CONVERSION CHART	14
WORLD WIDE QSL BUREAUS	27

DIRECTORY

FIRST CALL AREA	1
Includes the States of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.	
SECOND CALL AREA	44
Includes the States of New Jersey and New York.	
THIRD CALL AREA	122
Includes the States of Delaware, Maryland, Pennsylvania, and the District of Columbia.	
FOURTH CALL AREA	170
Includes the States of Alabama, Florida, Georgia, Kentucky, North and South Carolina, Tennessee and Virginia.	
FIFTH CALL AREA	253
Includes the States of Arkansas, Louisiana, Mississippi, New Mexico, Oklahoma and Texas.	

SIXTH CALL AREA	308
Includes the State of California.	
SEVENTH CALL AREA	388
Includes the States of Arizona, Idaho, Montana, Nevada, Oregon, Utah, Washington and Wyoming.	
EIGHTH CALL AREA	429
Includes the States of Michigan, Ohio and West Virginia.	
NINTH CALL AREA	490
Includes the States of Illinois, Indiana and Wisconsin.	
TENTH CALL AREA	546
Includes the States of Colorado, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota.	
OTHER CALLS INCLUDING HAWAII AND ALASKA	599

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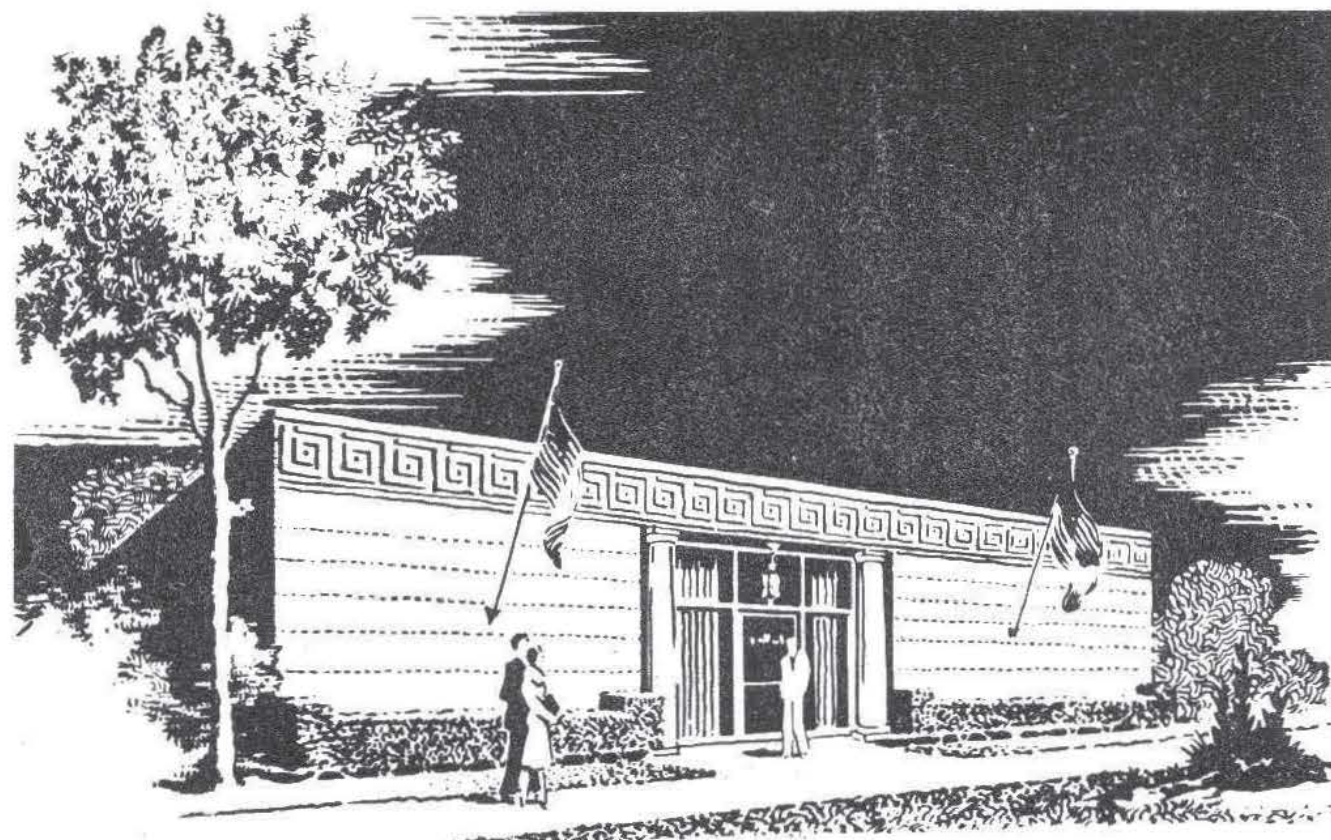
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The Home of RADIO AMATEUR CALLBOOK a modern air-conditioned building planned for maximum efficiency in the production of Callbooks and Callbook products.

A year around staff, through the use of electronic data processing equipment, evaluates and compiles the directory information received daily from all over the world. Extensive library and historical records are maintained to provide the most complete and accurate Callbook possible to produce.

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PREFIXES—BY COUNTRIES

The following countries listed in alphabetical order by country show international radio amateur prefixes. Characters in () designate the continent and zone in which the country is located. Abbreviations are as follows: A—Asia, AF—Africa, E—Europe, NA—North America, O—Oceania, SA—South America.

Afghanistan.....(A-21).....YA
 Aland Is.....(E-15).....OH0
 Alaska.....(NA-1).....KL7
 Albania.....(E-15).....ZA
 Algeria.....(AF-33).....7X
 Amsterdam & St. Paul Is.....(AF-39).....FB8
 Andaman & Nicobar Is.....(A-26).....VU5
 Andorra.....(E-14).....PX1
 Angola.....(AF-36).....CR6
 Antarctica.....CE9AA-AM, FB8Y, KC4AA,
 KC4US, LA, LU-Z, OR5, VK0,
 VP8, UA1, ZL5, 3Y, 8J
 Argentina.....(SA-13).....LU
 Ascension Is.....(AF-36).....ZD8
 Austral & French Antarctic (A-39).....FB8
 Australia.....(O-29 & 30).....VK
 Austria.....(E-15).....OE
 Azores Is.....(E-14).....CT2

Bahama Is.....(NA-8).....VP7
 Bahrain.....(A-21).....MP4B
 Baker Is.....(O-31).....KB6
 Balearic Is.....(E-14).....EA6
 Barbados Is.....(NA-8).....8P6
 Belgium.....(E-14).....ON
 Bermuda Is.....(NA-5).....VP9
 Bhutan.....(A-22).....AC5
 Bolivia.....(SA-10).....CP
 Borneo.....(O-28).....8F5
 Botswana.....(AF-38).....A2C
 Brazil.....(SA-11).....PY
 British Honduras.....(NA-7).....VP1
 British Phoenix Is.....(O-31).....VR1
 Brunei.....(O-28).....VS5
 Bulgaria.....(E-20).....LZ
 Burma.....(A-26).....XZ
 Burundi.....(AF-36).....9U5

Cambodia.....(A-26).....XU
 Cameroon.....(AF-36).....TJ
 Canada.....(NA-1 to 5).....VE
 Canal Zone.....(NA-7).....KZ5
 Canary Is.....(AF-33).....EA8
 Canton Is.....(O-31).....KB6
 Cape Verde Is.....(AF-35).....CR4
 Caroline Is.....(O-27).....KC6
 Cayman Is.....(NA-8).....ZF1
 Celebes & Molucca Is.....(O-28).....8F6
 Central African Republic.....(AF-36).....TL8
 Ceuta y Melilla, Spanish.....(A-33).....EA9
 Ceylon.....(A-22).....4S7
 Chad.....(AF-36).....TT8
 Chagos Is.....(AF-39).....VQ8
 Channel Is.....(E-14).....GC
 Chatham Is.....(O-32).....ZL
 Chile.....(SA-12).....CE
 China.....(A-23 & 24).....BY
 Christmas Is.....(O-29).....VK9
 Clipperton Is.....(NA-7).....F08
 Cocos Is.....(NA-7).....TI9
 Cocos-Keeling Is.....(O-29).....VK9
 Colombia.....(SA-9).....HK
 Comoro Is.....(AF-39).....FH8
 Congo, Republic of.....(AF-36).....TN8
 Congo, Republic of the.....(AF-36).....9Q5
 Cook Is.....(O-32).....ZK1
 Corsica.....(E-15).....FC
 Costa Rica.....(NA-7).....TI
 Crete.....(E-20).....SV
 Crozet Is.....(AF-39).....FB8
 Cuba.....(NA-8).....CM, C0
 Cyprus.....(A-20).....ZC4
 Czechoslovakia.....(E-15).....OK, OL

Dahomey.....(AF-35).....TY
 Das Is.....(A-21).....MP4D
 Denmark.....(E-14).....OZ
 Dodecanese Is.....(E-20).....SV5
 Dominican Republic.....(NA-8).....HI

Easter Is.....(SA-12).....CE0A
 Ecuador.....(SA-10).....HC
 Egypt.....(AF-34).....SU
 El Salvador.....(NA-7).....YS
 Enderbury Is.....(O-31).....KB6
 England.....(E-14).....G
 Ethiopia.....(AF-37).....ET3

Faeroes Is.....(E-14).....OY
 Falkland Is.....(SA-13).....VP8
 Fanning Is.....(O-31).....VR3
 Fernando de Noronha.....(SA-11).....PY7
 Fiji Is.....(O-32).....VR2
 Finland.....(E-15).....OH
 France.....(E-14).....F
 French Polynesia.....(O-32).....F08

Gabon.....(AF-36).....TR8
 Galapagos Is.....(SA-10).....HC8
 Gambia.....(AF-35).....ZD3
 German Federal Rep, West.....(E-14)DC, DJ, DK, DL
 German Dem. Rep, East.....(E-14).....DM
 Ghana.....(AF-35).....9G1
 Gibraltar.....(E-14).....ZB2
 Gilbert Is.....(O-31).....VR1
 Goa.....(A-22).....CR8
 Graham Land.....(SA-13).....VP8
 Greece.....(E-20).....SV
 Greenland.....(NA-40).....OX
 Guadeloupe Is.....(NA-8).....FG7
 Guantanamo Bay.....(NA-8).....KG4
 Guatemala.....(NA-7).....TG
 Guiana, French.....(SA-9).....FY7

Guinea, Portuguese.....(AF-35).....CR3
 Guinea, Republic of.....(AF-35).....7G1
 Guyana.....(SA-9).....8R
 Haiti.....(NA-8).....HH
 Hawaii.....(O-31).....KH6
 Heard Is.....(O-39).....VK0
 Honduras.....(NA-7).....HR
 Hong Kong.....(A-24).....VS6
 Howland Is.....(O-31).....KB6
 Hungary.....(E-15).....HA, HG

Iceland.....(E-40).....TF
 Ifni.....(AF-33).....EA9
 India.....(A-22).....VU
 Indonesia.....(O-28).....YB, YC, YD
 Iran.....(A-21).....EP
 Iraq.....(A-21).....YI
 Ireland.....(E-14).....EI
 Isle of Man.....(E-14).....GD
 Israel.....(A-20).....4X4, 4Z4
 Italy.....(E-15).....I
 Ivory Coast.....(AF-35).....TU2

Jamaica.....(NA-8).....6Y5
 Jan Mayen Is.....(E-40).....JX
 Japan.....(A-25).....JA, JH
 Jarvis Is.....(O-31).....KP6
 Java.....(O-28).....8F1, 2, 3
 Johnston Is.....(O-31).....KJ6
 Jordan.....(A-20).....JY
 Juan Fernandez Is.....(SA-12).....CE0Z

Kamran Is.....(A-21).....VS9K
 Kenya.....(AF-37).....5Z4
 Kerguelen Is.....(AF-39).....FB8
 Kermadec Is.....(O-32).....ZL1
 Korea.....(A-25).....HM, HL9
 Kuwait.....(A-21).....9K2

Labrador.....(NA-2).....V02
 Laccadive Is.....(A-22).....VU4
 Laos.....(A-26).....XW8
 Lebanon.....(A-20).....OD5
 Leeward Is. (West Indies).....(NA-8).....VP2
 Lesotho.....(AF-38).....7P8
 Liberia.....(AF-35).....EL, 5L
 Libya.....(AF-34).....5A
 Liechtenstein.....(E-14).....HB0
 Line Is.....(O-31).....VR3
 Little America.....(SA-13).....KC4
 Lord Howe Is.....(O-30).....VK2
 Luxembourg.....(E-14).....LX

Macao.....(A-24).....CR9
 Macquarie Is.....(O-30).....VK0
 Madeira Is.....(AF-33).....CT3
 Madagascar.....(AF-39).....5R8
 Malawi.....(AF-37).....7Q7
 Malaysia, Federation of.....(A-28).....9M2
 Maldives Is.....(A-22).....VS9
 Mali Republic.....(AF-35).....TZ
 Malta.....(E-15).....9H1
 Manchuria.....(A-24).....BY9
 Manihiki Is.....(O-32).....HD1
 Marcus Is.....(A-27).....KG6I
 Mariana Is.....(O-27).....KG6
 Marshall Is.....(O-31).....KX6
 Martinique.....(NA-8).....FM7
 Mauritania.....(AF-35).....5T5
 Mauritius Is.....(AF-39).....VQ8
 Mexico.....(NA-6).....XE, XF
 Midway Is.....(O-31).....KM6
 Monaco.....(E-14).....3A
 Mongolia.....(A-23).....JT1
 Morocco.....(AF-33).....CN
 Mozambique.....(AF-37).....CR7
 Muscat & Oman.....(A-21).....MP4M

Namibia.....(AF-38).....ZS3
 Nauru Is.....(O-31).....VK9
 Navassa Is.....(NA-8).....KC4
 Nepal.....(A-22).....9N1
 Netherlands.....(E-14).....PA, PE, PI
 Netherlands Antilles.....(SA-9).....PJ
 New Caledonia.....(O-32).....FK8
 Newfoundland.....(NA-5).....VO1
 New Guinea, N.E.....(O-28).....VK9
 New Hebrides.....(O-32).....FU8, YJ
 New Zealand.....(O-32).....ZL
 Nicaragua.....(NA-7).....YN
 Niger.....(AF-35).....5U7
 Nigeria.....(AF-35).....5N2
 Niue Is.....(O-32).....ZK2
 Norfolk Is.....(O-32).....VK9
 Northern Ireland.....(E-14).....GI
 Norway.....(E-14).....LA

Pakistan.....(A-21, 22).....AP
 Palmyra Is.....(O-31).....KP6
 Panama.....(NA-7).....HP
 Papua Territory.....(O-28).....VK9
 Paraguay.....(SA-11).....ZP
 Peru.....(SA-10).....OA
 Philippines.....(O-27).....DU
 Phoenix Is.....(O-31).....KB6
 Pitcairn Is.....(O-32).....VR6
 Poland.....(E-15).....SP
 Portugal.....(E-14).....CT1
 Prince Edward & Marion Is.....(AF-38).....ZS2
 Puerto Rico.....(NA-8).....KP4

Qatar.....(A-21).....MP4Q

Reunion Is.....(AF-39).....FR7
 Revillagigedo Is.....(NA-6).....XE4
 Rhodesia.....(AF-38).....ZE
 Rio Muni.....(AF-36).....EA0
 Rodriguez Is.....(AF-39).....VQ8
 Rumania.....(E-20).....Y0
 Rwanda.....(AF-36).....9X5
 Ryukyu Is.....(A-25).....KR6, KR8

Sabah.....(O-28).....9M6
 Saint Helena Is.....(AF-36).....ZD7
 Saint Martin Is.....(NA-8).....FS7
 Saint Pierre & Miquelon Is.....(NA-5).....FP8
 Samoa (U.S.).....(O-32).....KS6
 Samoa, Western.....(O-32).....5W1
 San Andres & Providencia.....(NA-7).....HK0
 San Marino.....(E-15).....M1
 Sao Tome & Principe Is.....(A-36).....CR5
 Sarawak.....(O-28).....9M8
 Sardinia.....(E-15).....IS
 Saudi Arabia.....(A-21).....HZ, 7Z
 Scotland.....(E-14).....GM
 Senegal.....(AF-35).....6W8
 Serrana Bk & Roncador Cay (NA-7).....KS4B
 Seychelles Is.....(AF-39).....VQ9
 Sicily.....(E-15).....IT
 Sierra Leone.....(AF-35).....9L
 Sikkim.....(A-22).....AC3
 Singapore.....(A-28).....9V1
 Socotra Is.....(AF-37).....VS9
 Solomon Is.....(O-28).....VR4
 Somali Republic.....(AF-37).....60
 Somaliland, French.....(AF-37).....FL8
 South Africa.....(AF-38).....ZS
 South Georgia Is.....(SA-13).....VP8
 South Orkney Is.....(SA-13).....VP8
 South Sandwich Is.....(SA-13).....VP8
 South Shetland Is.....(SA-13).....CE9, VP8
 South Yemen.....(A-21).....70
 Soviet Union:

European Russian Soviet Federated
 Socialist Republic.....(E-16).....UA1, 3, 4, 6
 Asiatic Russian S.F.S.R. (A-18, 19).....UA9, 0
 Ukrainian S.S.R.....(E-16).....UB5
 White Russian S.S.R.....(E-16).....UC2
 Azerbaidzhan S.S.R.....(A-21).....UD6
 Georgian S.S.R.....(A-21).....UF6
 Armenian S.S.R.....(A-21).....UG6
 Turkmen S.S.R.....(A-17).....UH8
 Uzbek S.S.R.....(A-17).....UI8
 Tadzhik S.S.R.....(A-17).....UJ8
 Kazakh S.S.R.....(A-17).....UL7
 Kirghiz S.S.R.....(A-17).....UM8
 Karelo-Finnish S.S.R. (E-16).....UN1
 Moldavian S.S.R.....(E-16).....U05
 Lithuanian S.S.R.....(E-15).....UP
 Latvian S.S.R.....(E-15).....UQ
 Estonian S.S.R.....(E-15).....UR

Spain.....(E-14).....EA
 Spanish Sahara (Rio de Oro) (A-33).....EA9
 Sudan.....(AF-34).....ST
 Sumatra.....(O-28).....8F4
 Surinam.....(SA-9).....PZ
 Svalbard Is.....(E-40).....JW
 Swan Is.....(NA-7).....KS4
 Swaziland.....(AF-38).....ZD5
 Sweden.....(E-14).....SK, SL, SM
 Switzerland.....(E-14).....HB
 Syria.....(A-20).....YK

Taiwan.....(A-24).....BV
 Tanzania.....(AF-37).....5H3
 Tasmania.....(O-30).....VK7
 Thailand.....(A-26).....HC
 Tibet.....(A-23).....AS4
 Timor Is. (Portuguese).....(O-28).....CR8
 Tinian Is.....(O-27).....KG6T
 Togo.....(AF-35).....5V
 Tokelau Is.....(O-31).....ZM7
 Tonga (Friendly) Is.....(O-32).....VR5
 Trindade & Martim Vaz Is.....(SA-11).....PY0
 Trinidad & Tobago Is.....(SA-9).....9Y4
 Tristan de Cunha & Gough.....(AF-38).....ZD9
 Tromelin Is.....(AF-39).....FB8
 Trucial States.....(A-21).....MP4T
 Tunisia.....(AF-33).....3V8
 Turkey.....(A-20).....TA, TC
 Turks & Caicos Is.....(NA-8).....VP5

Uganda.....(AF-37).....5X5
 United Nations, Geneva.....(E-14).....4U
 United States of America.....(NA-3, 4, 5).....W, K
 Upper Volta.....(AF-35).....XT2
 Uruguay.....(SA-13).....CX

Vatican City.....(E-15).....HV
 Venezuela.....(SA-9).....YV
 Vietnam.....(A-26).....3W8
 Virgin Is.....(NA-8).....KV4
 Volcano & Bonin Is.....(A-27).....KG6I

Wake Is.....(O-31).....KW6
 Wales.....(E-14).....GW
 Wallis & Futuna Is.....(O-32).....FW8
 West Irian.....(O-28).....JZ0
 Windward Is. (West Indies).....(NA-8).....VP2

Yemen.....(A-21).....4W1
 Yugoslavia.....(E-15).....YU

Zambia.....(AF-36).....9I, 9J
 Zanzibar.....(AF-37).....VQ1

CENSUS OF AMATEUR RADIO LICENSES OF THE WORLD *

Prefix	Country	Number of radio amateur licenses	Prefix	Country	Number of radio amateur licenses	Prefix	Country	Number of radio amateur licenses
A2	Botswana.....	7	KC4AA, US	Antarctica.....	12	VR2	Fiji Is.....	25
AC3	Sikkim.....	1	KC6	Caroline Is.....	20	VR3	Line Is.....	1
AC4	Tibet.....	2	KG4	Guantanamo Bay, Cuba.....	21	VR4	Solomon Is.....	6
AC5	Bhutan.....	2	KG6	Mariana Is.....	94	VR6	Pitcairn Is.....	1
AP	Pakistan.....	36	KG6I	Volcano Is.....	4	VS5	Brunei.....	6
BV	Taiwan (Formosa).....	1	KH6	Hawaii.....	1,632	VS6	Hong Kong.....	40
CE	Chile.....	1,945	KJ6	Johnston Is.....	4	VS9	Aden, Kamaran, Maldives, Socotra Is....	12
CE9	South Shetland Is, Graham Land.....	26	KL7	Alaska.....	1,432	VU2	India.....	496
CE0A	Easter Is.....	4	KM6	Midway Is.....	16	W, K	United States of America (See K, W).....	
CE0Z	Juan Fernandez Is.....	10	KP4	Puerto Rico.....	933	XE, XF	Mexico.....	2,585
CM, CO	Cuba.....	399	KP6	Jarvis & Palmyra Is.....	5	XE1	- 1,262	
CN	Morocco.....	135	KR6, 8	Ryukyu Is. (Okinawa).....	228	XE2	- 1,187	
CP	Bolivia.....	467	KS4	Swan Is.....	8	XE3	- 114	
CR3	Portuguese Guinea.....	3	KS6	U. S. Samoa.....	39	XE6	- 2	
CR4	Cape Verde Is.....	27	KV4	Virgin Is.....	74	XE0	- 20	
CR5	Sao Tome & Principe Is.....	2	KW6	Wake Is.....	29	XT2	Upper Volta.....	3
CR6	Angola.....	244	KX6	Marshall Is.....	78	XW8	Laos.....	11
CR7	Mozambique.....	183	KZ5	Canal Zone.....	186	XZ	Burma.....	31
CR8	Timor Is.....	1	LA	Norway.....	2,317	YA	Afghanistan.....	8
CR9	Macao.....	1	LU	Argentina.....	11,882	YB, YC, YD	Indonesia.....	56
CT1	Portugal.....	327	LX	Luxembourg.....	87	YK	Syria.....	10
CT2	Azores Is.....	7	LZ	Bulgaria.....	395	YN	Nicaragua.....	278
CT3	Madeira Is.....	18	M1	San Marino.....	4	YO	Romania.....	283
CX	Uruguay.....	2,245	MP4	Bahrein & Das Is, Muscat & Oman, Qatar, Trucial States.....	262	YS	El Salvador.....	201
DC, DJ, DK, DL	West German Federal Republic.....	14,088	OA	Peru.....	1,048	YU	Yugoslavia.....	1,903
DM	East German Democratic Republic.....	2,684	OD5	Lebanon.....	78	YV	Venezuela.....	3,198
DU	Philippines.....	143	OE	Austria.....	1,295	ZB2	Gibraltar.....	12
EA	Spain.....	1,103	OH	Finland.....	2,059	ZC4	Cyprus.....	31
EA6	Balearic Is.....	17	OH0	Aland Is.....	17	ZD3	Gambia.....	2
EA8	Canary Is.....	131	OK, OL	Czechoslovakia.....	1,000	ZD5	Swaziland.....	7
EA9	Spanish Sahara, Ifni, Ceuta y Melilla....	18	ON	Belgium.....	1,185	ZD7	Saint Helena.....	4
EI	Ireland.....	289	OX	Greenland.....	41	ZD8	Ascension Is.....	14
EL, 5L	Liberia.....	85	OY	Faeroes Is.....	59	ZD9	Tristan da Cunha & Gough Is.....	2
EP	Iran.....	25	OZ	Denmark.....	2,852	ZE	Rhodesia.....	184
ET3	Ethiopia.....	12	PA, PE, PI	Netherlands.....	1,984	ZF1	Cayman Is.....	14
F	France.....	4,332	PJ	Netherlands Antilles - PJ2 - Curacao... PJ3 - Aruba..... PJ4 - Bonaire... PJ6 - Saba Is... PJ7 - Saint Maarten	30 25 3 1 5	ZK1	Cook Is.....	8
FB8	Amsterdam, St. Paul, Crozet, Kerguelen, Tromelin Is.....	4	PX1	Andorra.....	12	ZK2	Niue Is.....	1
FG7	Guadeloupe Is.....	28	PY	Brazil.....	10,088	ZL	New Zealand.....	4,148
FH8	Comoro.....	3	PY7	Fernando de Noronha Is.....	6	ZP	Paraguay.....	235
FK8	New Caledonia.....	24	PY0	Trindade & Martim Vaz Is.....	9	ZS	South Africa.....	2,519
FL8	French Somaliland.....	7	PZ	Surinam.....	41	ZS3	South-West Africa.....	50
FM7	Martinique.....	20	SL, SM	Sweden.....	3,874	3A	Monaco.....	18
F08	French Polynesia.....	36	SP	Poland.....	2,429	3V8	Tunisia.....	2
FP8	St. Pierre & Miquelon Is.....	5	SV	Egypt.....	8	4S7	Ceylon.....	57
FR7	Reunion Is.....	16	TF	Greece, Crete.....	94	4U	United Nations, Geneva.....	2
FS7	Saint Martin.....	1	TG	Iceland.....	44	4W1	Yemen.....	9
FU8, YJ	New Hebrides.....	16	TI	Guatemala.....	187	4X4, 4Z4	Israel.....	569
FY	French Guiana.....	13	TI9	Costa Rica.....	479	5A	Libya.....	54
G	England.....	16,394	TJ	Cocos Is.....	3	5H3	Tanzania.....	13
GC	Channel Is.....	79	TL8	Cameroon.....	19	5N2	Nigeria.....	15
GD	Isle of Man.....	42	TN8	Central African Republic.....	4	5R8	Madagascar.....	16
GI	Northern Ireland.....	308	TR8	Republic of Congo (Brazzaville).....	9	5T5	Mauritania.....	3
GM	Scotland.....	1,167	TT8	Gabon.....	5	5U7	Niger.....	6
GW	Wales.....	707	TU2	Chad.....	9	5V	Togo.....	10
HA, HG	Hungary.....	527	TY	Ivory Coast.....	33	5W1	Western Samoa.....	9
HB	Switzerland.....	845	VE	Dahomey.....	4	5X5	Uganda.....	3
HB0	Liechtenstein.....	2	VE1	Canada.....	11,935	5Z4	Kenya.....	55
HC	Ecuador.....	446	VE2	- 1,096		60	Somali Republic.....	6
HC8	Galapagos Is.....	4	VE3	- 2,143		6W8	Senegal.....	31
HH	Haiti.....	35	VE4	- 505		6Y5	Jamaica.....	51
HI	Dominican Republic.....	388	VE5	- 536		7G1	Republic of Guinea.....	2
HK	Colombia.....	1,778	VE6	- 1,119		7P8, ZS8	Lesotho.....	10
HK0	San Andres & Providencia Is.....	20	VE7	- 1,720		7Q7	Malawi.....	13
HM, HL	Korea.....	173	VE8	- 113		7X	Algeria.....	23
HP	Panama.....	173	VE0	- 20		7Z, HZ	Saudi Arabia.....	2
HR	Honduras.....	180	VK	Australia.....	5,689	8J	Antarctica.....	2
HS	Thailand.....	52	V01	Newfoundland.....	204	8P6	Barbados Is.....	67
HV	Vatican City.....	2	V02	Labrador.....	28	8R	Guyana.....	18
HZ	Saudi Arabia.....	5	VP1	British Honduras.....	27	9G1	Ghana.....	53
I	Italy.....	3,548	VP2	Windward-Leeward Is.....	134	9H1	Malta.....	43
IS	Sardinia.....	50	VP5	Turks & Caicos Is.....	11	9I, 9J	Zambia.....	59
IT	Sicily.....	157	VP7	Bahama Is.....	47	9K2	Kuwait.....	50
JA, JH	Japan.....	11,792	VP8	Falkland, South Georgia, South Orkney, South Sandwich, South Shetland Is....	37	9L	Sierra Leone.....	3
JT1	Mongolia.....	3	VP9	Bermuda Is.....	46	9M2	Federation of Malaysia.....	81
JW	Svalbard Is.....	8	VQ1	Zanzibar.....	2	9M6	Sabah.....	8
JX	Jan Mayen Is.....	9	VQ8	Mauritius & Rodriguez Is.....	22	9M8	Sarawak.....	16
K, W	United States of America (48 states)....	282,104	VQ9	Seychelles Is.....	6	9N1	Nepal.....	1
KA	U. S. Personnel in Japan.....	132	VR1	British Phoenix, Ellice, Gilbert & Ocean Is.	2	9Q5	Republic of the Congo (Kinshasa).....	227
KB6	Baker, Canton, Enderbury, Howland & Phoenix Is.....	12				9U5	Burundi.....	16
						9V1	Singapore.....	56
						9X5	Rwanda.....	46
						9Y4	Trinidad & Tobago Is.....	120

* From the Summer 1969 Radio Amateur Callbook Magazines.
Absence of prefix and country indicates either that no licenses have
been issued or have not been obtainable from official sources.

INTERNATIONAL RADIO AMATEUR PREFIXES

The following prefixes are listed in alphabetical order for convenience in locating the country when DX calls are heard.

A2C..... Botswana	KG6..... Mariana Is. (Guam)	VP8..... Falkland, S. Georgia, S. Orkney, S. Sandwich, S. Shetland Is., Graham Land
AC3..... Sikkim	KG6I..... Marcus, Volcano & Bonin Is.	VP9..... Bermuda Is.
AC4..... Tibet	KG6S..... Saipan Is.	VQ1..... Zanzibar
AC5..... Bhutan	KG6T..... Tinian Is.	VQ8..... Chagos, Mauritius & Rodriguez Is.
AP..... Pakistan	KH6..... Hawaii	VQ9..... Seychelles Is.
BV..... Taiwan	KJ6..... Johnston Is.	VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.
BY..... China	KL7..... Alaska	VR2..... Fiji Is.
BY9..... Manchuria	KM6..... Midway Is.	VR3..... Fanning, Line Is.
CE..... Chile	KP4..... Puerto Rico	VR4..... Solomon Is.
CE9..... South Shetland Is.	KP6..... Jarvis & Palmyra Is.	VR5..... Tonga Is.
CE0A..... Easter Is.	KR6, KR8..... Ryukyu Is. (Okinawa)	VR6..... Pitcairn Is.
CE0Z..... Juan Fernandez Is.	KS4..... Swan Is.	VS5..... Brunei
CM, CO..... Cuba	KS4B..... Serrana Bank & Roncador Cay	VS6..... Hong Kong
CN..... Morocco	KS6..... U. S. Samoa	VS9..... Maldive, Kamaran, Socotra Is.
CP..... Bolivia	KV4..... Virgin Is.	VU..... India
CR3..... Portuguese Guinea	KW6..... Wake Is.	VU4..... Laccadive Is.
CR4..... Cape Verde Is.	KX6..... Marshall Is.	VU5..... Andaman & Nicobar Is.
CR5..... Sao Tome & Principe Is.	KZ5..... Canal Zone	
CR6..... Angola		
CR7..... Mozambique		
CR8..... Goa		
CR8..... Timor Is. (Portuguese)		
CR9..... Macao		
CT1..... Portugal		
CT2..... Azores Is.		
CT3..... Madeira Is.		
CX..... Uruguay		
DC, DJ, DK, DL..... West German Federal Rep.		
DM..... East German Democratic Rep.		
DU..... Philippines		
EA..... Spain		
EA6..... Balearic Is.		
EA8..... Canary Is.		
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla		
EA0..... Rio Muni		
EI..... Ireland		
EL, 5L..... Liberia		
EP..... Iran		
ET3..... Ethiopia		
F..... France		
FB8..... Austral and Antarctic French Lands, Amsterdam, St. Paul, Crozet, Kerguelen, Tromelin Is.		
FC..... Corsica		
FG7..... Guadeloupe Is.		
FH8..... Comoro Is.		
FK8..... New Caledonia		
FL8..... French Somaliland		
FM7..... Martinique		
F08..... French Polynesia, Clipperton Is.		
FP8..... St. Pierre & Miquelon Is.		
FR7..... Reunion Is.		
FS7..... Saint Martin		
FU8..... New Hebrides		
FW8..... Wallis & Futuna Is.		
FY7..... French Guiana		
G..... England		
GC..... Channel Is.		
GD..... Isle of Man		
GI..... Northern Ireland		
GM..... Scotland		
GW..... Wales		
HA, HG..... Hungary		
HB..... Switzerland		
HB0..... Liechtenstein		
HC..... Ecuador		
HC8..... Galapagos Is.		
HD1..... Manihiki Is.		
HH..... Haiti		
HI..... Dominican Republic		
HK..... Colombia		
HK0..... San Andres & Providencia Is.		
HM, HL9..... Korea		
HP..... Panama		
HR..... Honduras		
HS..... Thailand		
HV..... Vatican City		
HZ..... Saudi Arabia		
I..... Italy		
IS..... Sardinia		
IT..... Sicily		
JA, JH..... Japan		
JT1..... Mongolia		
JW..... Svalbard Is.		
JX..... Jan Mayen Is.		
JY..... Jordan		
JZ0..... West Irian		
K..... United States of America		
KA..... U. S. Personnel in Japan		
KB6..... Baker, Canton, Enderbury, Howland & Phoenix Is.		
KC4..... Navassa Is.		
KC4AA, KC4US..... Antarctica		
KC6..... Caroline Is.		
KG1..... U. S. Personnel in Greenland		
KG4..... Guantanamo Bay, Cuba		
LA..... Norway		
LU..... Argentina		
LX..... Luxembourg		
LZ..... Bulgaria		
M1..... San Marino		
MP4..... Bahrain and Das Is., Muscat & Oman, Qatar, Trucial States		
OA..... Peru		
OD5..... Lebanon		
OE..... Austria		
OH..... Finland		
OH0..... Aland Is.		
OK, OL..... Czechoslovakia		
ON..... Belgium		
OX..... Greenland		
OY..... Faeroes Is.		
OZ..... Denmark		
PA, PE, PI..... Netherlands		
PJ..... Netherlands Antilles		
PJ2..... Curacao		
PJ3..... Aruba		
PJ4..... Bonaire		
PJ5..... St. Eustatius		
PJ6..... Saba Is.		
PJ7..... Saint Maarten		
PX1..... Andorra		
PY..... Brazil		
PY7..... Fernando de Noronha Is.		
PY0..... Trindade & Martin Vaz Is.		
PZ..... Surinam		
SK, SL, SM..... Sweden		
SP..... Poland		
ST..... Sudan		
SU..... Egypt (United Arab Republic)		
SV..... Crete, Greece		
SV5..... Dodecanese Is.		
TA, TC..... Turkey		
TF..... Iceland		
TG..... Guatemala		
TI..... Costa Rica		
TI9..... Cocos Is.		
TJ..... Cameroon		
TL8..... Central African Republic		
TN8..... Republic of Congo (Brazzaville)		
TR8..... Gabon		
TT8..... Chad		
TU2..... Ivory Coast		
TY..... Dahomey		
TZ..... Mali Republic		
UA1, 3, 4, 6..... European Russian Soviet Federated Socialist Republic		
UA9, 0..... Asiatic Russian S. F. S. R.		
UB5..... Ukrainian S. S. R.		
UC2..... White Russian S. S. R.		
UD6..... Azerbaidzhan S. S. R.		
UF6..... Georgian S. S. R.		
UG6..... Armenian S. S. R.		
UH8..... Turkmen S. S. R.		
UI8..... Uzbek S. S. R.		
UJ8..... Tadzhik S. S. R.		
UL7..... Kazakh S. S. R.		
UM8..... Kirghiz S. S. R.		
UN1..... Karelo-Finnish S. S. R.		
UO5..... Moldavian S. S. R.		
UP..... Lithuanian S. S. R.		
UQ..... Latvian S. S. R.		
UR..... Estonian S. S. R.		
VE..... Canada		
VK..... Australia		
VK2..... Lord Howe Is.		
VK7..... Tasmania		
VK9..... New Guinea, Papua, Christmas, Cocos-Keeling, Nauru, Norfolk Is.		
VK0..... Heard & Macquarie Is., Antarctica		
VO1..... Newfoundland		
VO2..... Labrador		
VP1..... British Honduras		
VP2..... Leeward & Windward Is.		
VP5..... Turks & Caicos Is.		
VP7..... Bahama Is.		
W..... United States of America		
XE, XF..... Mexico		
XE4..... Revillagigedo Is.		
XT2..... Upper Volta		
XU..... Cambodia		
XW8..... Laos		
XZ..... Burma		
YA..... Afghanistan		
YB, YC, YD..... Indonesia		
YI..... Iraq		
YJ..... New Hebrides		
YK..... Syria		
YN..... Nicaragua		
YO..... Rumania		
YS..... El Salvador		
YU..... Yugoslavia		
YV..... Venezuela		
ZA..... Albania		
ZB2..... Gibraltar		
ZC4..... Cyprus		
ZD3..... Gambia		
ZD5..... Swaziland		
ZD7..... Saint Helena		
ZD8..... Ascension Is.		
ZD9..... Tristan da Cunha & Gough Is.		
ZE..... Rhodesia		
ZF1..... Cayman Is.		
ZK1..... Cook Is.		
ZK2..... Niue Is.		
ZL..... New Zealand		
ZL1..... Kermadec		
ZM7..... Tokelau Is.		
ZP..... Paraguay		
ZS..... South Africa		
ZS2..... Prince Edward & Marion Is.		
ZS3..... Namibia (South-West Africa)		
3A..... Monaco		
3V8..... Tunisia		
3W8..... Vietnam		
3Y..... Norwegian Terr. in Antarctica		
4S7..... Ceylon		
4U..... United Nations, Geneva, Turin		
4W1..... Yemen		
4X4, 4Z4..... Israel		
5A..... Libya		
5H3..... Tanzania		
5N2..... Nigeria		
5R8..... Madagascar (Malagasy Republic)		
5T5..... Mauritania		
5U7..... Niger		
5V..... Togo		
5W1..... Western Samoa		
5X5..... Uganda		
5Z4..... Kenya		
60..... Somali Republic		
6W8..... Senegal		
6Y5..... Jamaica		
7G1..... Republic of Guinea		
70..... South Yemen		
7P8..... Lesotho		
7Q7..... Malawi		
7X..... Algeria		
7Z..... Saudi Arabia		
8P6..... Barbados Is.		
8R..... Guyana		
9G1..... Ghana		
9H1..... Malta		
9I, 9J..... Zambia		
9K2..... Kuwait		
9L1..... Sierra Leone		
9M2..... Federation of Malaysia		
9M6..... Sabah		
9M8..... Sarawak		
9N1..... Nepal		
9Q5..... Republic of the Congo (Kinshasa)		
9U5..... Burundi		
9V1..... Singapore		
9X5..... Rwanda		
9Y4..... Trinidad & Tobago Is.		

TELEGRAPH CODES

CONTINENTAL CODE	MORSE CODE
Used in radio, on submarine cables and abroad	Used on land lines in United States and Canada
A . - B - . . . C - - . . . D - . . . E . F . . - . G - - . H I . . J . - . - K - . - . L . - . . M - - N - . O - - - P . - . - Q - . - . R . - . S . . . T - U . . - V . . . - W . - - - X - . - . Y - . - - Z - - . .	A . - B - . . . C - . . . D - . . . E . F . . - . G - . . H I . . J . - . - K - . - . L . - . . M - - N - . O - - - P . - . - Q - . - . R . - . S . . . T - U . . - V . . . - W . - - - X - . - . Y - . - - Z - - . . &
There are no space letters in the Continental Code	C, O, R, Y, Z and & are composed of dots and spaces T is a short dash L is a longer dash Zero (0) is usually abbreviated to T
Figures 1 . - - - - 2 . . - - - 3 . . . - - 4 - 5 6 - 7 - - . . . 8 - - - . . 9 - - - - . 0 - - - - -	Figures 1 . - - . 2 . . - . 3 . . . - 4 5 - . . . 6 - 7 - - . . 8 - - . . . 9 - - . . . 0 - - - -
Punctuation (.) . - . . . - (,) - - . . . - (?) (:) - - (;) - (-) - (!) None at present (') . - (/) - () - - (") . -	Punctuation (.) . - (,) . - (?) (:) (;) (-) (!) . - (') (/) . - () (")

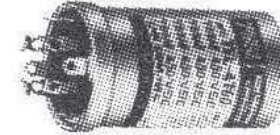
EMERGENCY SIGNAL

QRRR (The land SOS) To be used only by a station in the affected area when calling with an emergency message.

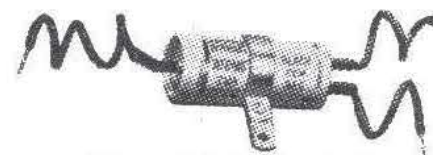
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Twist-Lok® Electrolytics



Hermetically sealed in aluminum cases. Withstand high temperatures (85° C), high surge voltages, high ripple currents.



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Tiny, dependable single or multiple section units. Low leakage, long shelf life. Metal cases.



Littl-Lytic® Electrolytics

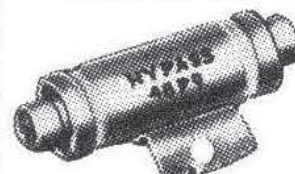
Ultra-small, excellent for transistorized circuitry. All-welded construction—no pressure joints to cause "opens". Long shelf life.



Transi-lytic® Capacitors

Miniature low-cost capacitors for transistorized and other low voltage circuitry. Special low-leakage current construction. Plastic case provides excellent resistance to high humidity.

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Exclusive 3-terminal feed-thru units which effectively by-pass vhf currents. Suppress TVI from transmitters, diathermy, line-conducted radiation, etc.

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Rectangular Oils



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Screwbase Oils

Cylindrical screwbase can for easy single hole mounting. Oil-impregnated, oil filled. Small size, will fit tight spaces.

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Black Beauty® Molded Tubulars

Dual dielectric (polyester film and paper) combines best features of both. Solid impregnant, nothing to leak or drip. Molded phenolic case. Withstand high temperatures, high humidity.



Orange Drop® Dipped Tubulars

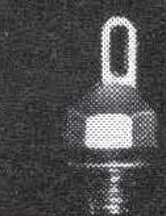
Dual dielectric (polyester film and paper), with solid impregnant. Double-dipped in epoxy resin. Radial leads, ideal for printed wiring boards.

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Flat disc capacitor element sealed in top of hex head. Screw stud for easy mounting. Low self-inductance, high self-resonant frequency. Ideal for by-pass or feed-thru applications.

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A. R. R. L. COUNTRIES LIST

The ARRL Postwar Countries List is the official standard used in connection with the DX Century Club. To qualify for the DX Century Club Award, an applicant must submit confirmations from at least 100 different countries contacted after November 15, 1945, in accordance with the Postwar DXCC Rules. Copies of the DXCC Rules will be furnished by ARRL on request.

AC3.....Sikkim
AC4.....Tibet
AC.....Bhutan
AP.....East Pakistan
AP.....West Pakistan
BV.....Formosa
BY.....China
*C9.....Manchuria
CE.....Chile
CE9AA-AM, FB8Y, KC4, LA, LU-Z, OR4, UA1, VK0, VP8, ZL5, BJ.....Antarctica
CE9AN-AZ (See VP8)
CE9A.....Easter Island
CE9X.....San Felix
CE9Z.....Juan Fernandez arch.
CM, CO.....Cuba
*CN2.....Tangier
CN2, 8, 9.....Morocco
CP.....Bolivia
CR3, 5.....Portuguese Guinea
CR4.....Cape Verde Islands
CR5.....Principe, Sao Thome
CR6.....Angola
CR7.....Mozambique
*CR8.....Damao, Diu
*CR8.....Goa
CR8, CR10.....Portuguese Timor
CR9.....Macao
CT1.....Portugal
CT2.....Azores
CT3.....Madeira Islands
CX.....Uruguay
DJ, DK, DL, DM.....Germany
DU.....Philippine Islands
EA.....Spain
EA6.....Balearic Islands
EA8.....Canary Islands
EA9.....Ibiza
EA9.....Rio de Oro
EA9.....Spanish Morocco
EA9.....Spanish Guinea
EL.....Republic of Ireland
EL.....Liberia
EP.....Iran
*ET2.....Eritrea
ET3.....Ethiopia
F.....France
FA (See 7X)
FB8Z.....Amsterdam & St. Paul Is.
FB8Y (See CE9AA-AM)
FB8W.....Crozet Is.
FB8X.....Kerguelen Islands
FB8 (See FH8)
FB8 (See 5R8)
FB8 (See FR7)
*FC.....Corsica
FD (See 5V)
FE8 (See TJ)
FF4 (See TU)
FF7 (See 5T)
FF8 (See TY)
FF8 (See TZ)
FF8 (See 5U7)
FF8 (See XT)
FF8 (See 6W8)
*FF8.....French West Africa
FG7.....Guadeloupe
FH8, FB8.....Comoro Islands
*FH8.....French Indo-China
FK8.....New Caledonia
FL8.....French Somaliland
FM7.....Martinique
*FN.....French India
F08.....Clipperton Island
F08.....French Oceania
F08M.....Maria Theresa
FP8.....St. Pierre & Miquelon Is.
FQ8 (See TL)
FQ8 (See TT)
FQ8 (See TN)
FQ8 (See TR)
*FQ8.....French Equatorial Africa
*FR7.....Glorioso Islands
*FR7.....Juan de Nova
FR7.....Reunion
FR7.....Tromelin
FS7.....Saint Martin
FU8 (See YJ)
FW8.....Wallis & Futuna Islands
FY7.....French Guiana & Inini
G.....England
GC.....Guernsey & Dependencies
GC.....Jersey Island
GD.....Isle of Man
GI.....Northern Ireland
GM.....Scotland
GW.....Wales
HA, HG.....Hungary
HB.....Switzerland
HB0, HE.....Liechtenstein
HC.....Ecuador
HC8.....Galapagos Islands
HE (See HB0)
HH.....Haiti
HI.....Dominican Republic
HK.....Colombia
HK0.....Bajo Nuevo
HK0.....Malpelo Is.
HK0.....San Andres & Providencia
HK0 (See KS4B)
HL, HM.....Korea
HP.....Panama
HR.....Honduras
HS.....Thailand
HV.....Vatican
HZ, 7Z.....Saudi Arabia
I, IT.....Italy
*I1.....Trieste
*I5.....Italian Somaliland
IS1.....Sardinia
JA, JH, KA.....Japan
JT.....Mongolia
JX, LA/P.....Jan Mayen
JY.....Jordan
JW, LA/P.....Svalbard
*JZ0.....Netherlands New Guinea
K, W.....United States of America
KA (See JA)
KA1 (See KG61)
KB6.....Baker, Howland & American Phoenix Islands
KC4 (See CE9AA-AM)
KC4.....Navassa Island
KC6.....Eastern Caroline Is.
KC6.....Western Caroline Is.
KG1 (See OX)
KG4.....Guantanamo Bay
KG6.....Guam
KG61, KA1.....Bonin & Volcano Islands
KG61, KA1.....Marcus Island
KG6R, S, T.....Mariana Islands
KH6.....Hawaiian Islands
KH6.....Kure Island

KJ6.....Johnston Island
KL7.....Alaska
KM6.....Midway Islands
KP4.....Puerto Rico
KP6.....Palmyra Group, Jarvis Is.
KR6, 8.....Ryukyu Islands
KS4B, HK0.....Serrana Bank & Roncador Cay
KS4.....Swan Islands
KS6.....American Samoa
KV4.....Virgin Islands
KW6.....Wake Island
KX6.....Marshall Islands
KZ5.....Canal Zone
LA, LG.....Norway
LA/P (See JX, JW)
LA/G (See 3Y)
LA (See CE9AA-AM)
LU.....Argentina
LU-Z (See CE9AA-AM, P8, VP8)
LX.....Luxembourg
LZ.....Bulgaria
M1 (See 9A1)
MP4B.....Bahrein
MP4Q.....Qatar
MP4M, VS90.....Sultanate of Muscat & Oman
MP4D, T.....Trucial Oman
OA.....Peru
OD5.....Lebanon
OE.....Austria
OH, OF.....Finland
OH0.....Aland Islands
OK.....Czechoslovakia
ON.....Belgium
OQ5, 0 (See 9Q5)
OR4 (See CE9AA-AM)
OX, KG1, XP.....Greenland
OY.....Faroe Islands
OZ.....Denmark
PA, PE, PI.....Netherlands
PJ.....Netherlands Antilles
PJ-M, S.....Sint Maarten
PK (See 8F)
*PK1, 2, 3.....Java
*PK4.....Sumatra
*PK5.....Netherlands Borneo
*PK6.....Celebes & Molucca Islands
PX.....Andorra
PY.....Brazil
PY0.....Fernando de Noronha
PY0.....St. Peter & St. Paul's Rocks
PY0.....Trindade & Martim Vaz Is.
PZ1.....Surinam
SK, SL, SM.....Sweden
SP.....Poland
ST2.....Sudan
SU.....Egypt
SV.....Crete
SV.....Dodecanese
SV.....Greece
TA.....Turkey
TF.....Iceland
TG.....Guatemala
TI.....Costa Rica
TI9.....Cocos Island
TJ, FE8.....Cameroun
*TL.....Central African Rep.
*TN.....Congo Rep.
*TR.....Gabon Rep.
*TT.....Chad Rep.
*TU.....Ivory Coast
*TY.....Dahomey Rep.
*TZ.....Mali Rep.
UA, UV, UW1-6, UN1.....European Russian S.F.S.R.
UA1.....Franz Josef Land
UA1 (See CE9AA-AM)
UA2.....Kaliningradsk
UA, UV, UW9, 0.....Asiatic R.S.F.S.R.
UB5, UT5, UY5.....Ukraine
UC2.....White Russian, S.S.R.
UD6.....Azerbaijan
UF6.....Georgia
UG6.....Armenia
UH8.....Turkoman
UI8.....Uzbek
UJ8.....Tadzhik
UL7.....Kazakh
UM8.....Kirghiz
*UN1.....Karelo-Finnish Republic
U05.....Moldavia
UP2.....Lithuania
UQ2.....Latvia
UR2.....Estonia
VE, V0, 3B, 3C.....Canada
VK.....Australia (inc. Tasmania)
VK.....Lord Howe Island
VK4.....Willis Islands
VK9, ZC3.....Christmas Island
VK9.....Cocos Islands
VK9.....Nauru Island
VK9.....Norfolk Island
VK9.....Papua Territory
VK9.....Territory of New Guinea
VK0 (See CE9AA-AM)
VK0.....Heard Island
VK0.....Macquarie Island
VO (See VE)
*V0.....Newfoundland, Labrador
VP1.....British Honduras
*VP2K.....Anguilla
*VP2A.....Antigua, Barbuda
*VP2V.....British Virgin Islands
*VP2D.....Dominica
*VP2G.....Grenada & Dependencies
*VP2M.....Montserrat
*VP2K.....St. Kitts, Nevis
*VP2L.....St. Lucia
*VP2S.....St. Vincent & Dependencies
VP3 (See 8R)
VP4 (See 9Y4)
VP5 (See ZF1)
VP5 (See 6Y5)
VP5.....Turks & Caicos Islands
VP6 (See 8P)
VP7.....Bahama Islands
VP8 (See CE9AA-AM)
VP8.....Falkland Islands
VP8, LU-Z.....So. Georgia Is.
VP8, LU-Z.....So. Orkney Is.
VP8, LU-Z.....So. Sandwich Is.
VP8, LU-Z, CE9AN-AZ.....So. Shetland Is.
VP9.....Bermuda Islands
VQ1.....Zanzibar
VQ2 (See 9J2)
VQ3 (See 5H3)
VQ4 (See 5Z4)
VQ5 (See 5X5)
*VQ6.....British Somaliland
VQ8.....Agalega & St. Brandon
VQ8.....Mauritius
VQ8.....Rodriguez Island
VQ9.....Aldabra

VQ9.....Chagos Islands
VQ9.....Desroches
VQ9.....Farquhar
VQ9.....Seychelles
VR1.....British Phoenix Islands
VR1.....Gilbert & Ellice Is. & Ocean Island
VR2.....Fiji Islands
VR3.....Fanning & Christmas Is.
VR4.....Solomon Islands
VR5.....Tonga Islands
VR6.....Pitcairn Island
*VS1, 9M4, 9V1.....Singapore
VS1, 9M2 (See 9M2, 4)
VS2 (See 9M2)
*VS4.....Sarawak
VS4, ZC5 (See 9M6, 8)
VS5.....Brunei
VS6.....Hong Kong
VS9A, P, S.....Aden & Socotra
VS9K.....Kamran Is.
*VS9H.....Kuria Muria Is.
VS9M (See 8Q)
VS90 (See MP4M)
VU.....Andaman & Nicobar Is.
VU.....India
VU.....Laccadive Islands
W (See K)
XE, XF, 4A.....Mexico
XF4.....Revilla Gigedo
XP (See OX)
*XT.....Voltaic Rep.
XU.....Cambodia
XV5 (See 3W8)
XW8.....Laos
XZ2.....Burma
YA.....Afghanistan
YI.....Iraq
YJ, (FU8).....New Hebrides
YK.....Syria
YN, YN0.....Nicaragua
Y0.....Rumania
Y5.....Salvador
YU.....Yugoslavia
YV.....Venezuela
YV0.....Aves Island
Z.....Albania
ZB1 (See 9H1)
ZB2.....Gibraltar
ZC3 (See VK9)
ZC4 (See 5B4)
ZC5 (See 9M6, 8)
*ZC5.....British North Borneo
*ZC6.....Palestine
ZD1 (See 9L1)
ZD2 (See 5N2)
ZD3.....The Gambia
ZD4 (See 9G1)
*ZD4.....Gold Coast, Togoland
ZD5, ZS7.....Swaziland
ZD6 (See 7Q7)
ZD7.....St. Helena
ZD8.....Ascension Island
ZD9.....Tristan da Cunha & Gough Island
ZE.....Rhodesia
ZF1, VP5.....Cayman Islands
ZK1.....Cook Islands
ZK1.....Manihiki Islands
ZK2.....Niue
ZL.....Auckland Is. & Campbell Is.
ZL.....Chatham Islands
ZL.....Kermadec Islands
ZL.....New Zealand
ZL5 (See CE9AA-AM)
ZM6 (See 5W1)
ZM7.....Tokelau
ZP.....Paraguay
ZS1, 2, 4, 5, 6.....South Africa
ZS2.....Prince Edward & Marion Is.
ZS3.....Southwest Africa
ZS7 (See ZD5)
ZS8 (See 7P8)
ZS9.....Botswana
1M.....Minerva Reefs
1S.....Spratly Is.
3A.....Monaco
3B, 3C (See VE)
3V8.....Tunisia
3W8, XV5.....Vietnam
3X, (7G).....Rep. of Guinea
3Y, LA/G.....Bouvet Island
4A (See XE)
457.....Ceylon
4U.....I.T.U. Geneva
4W.....Yemen
4X, 4Z.....Israel
5A.....Libya
5B4, ZC4.....Cyprus
5H3, VQ3.....Tanganyika
5N2, ZD2.....Nigeria
5R8, FB8.....Malagasy Rep.
*5T (See 5S1)
*5U7.....Mauritania
5V.....Niger Rep.
5V.....Togo Rep.
5W1, ZM6.....Western Samoa
5X5, VQ5.....Uganda
5Z4, VQ4.....Kenya
601, 2, 6.....Somali Rep.
*6W8, FF8.....Senegal Rep.
6Y5, VP5.....Jamaica
*7G1 (See 3X)
7P8, ZS8.....Lesotho
7Q7, ZD6.....Malawi
7X, FA.....Algeria
7Z (See HZ)
*8F, PK.....Indonesia
8J (See CE9AA-AM)
8P, VP6.....Barbados
8Q, VS9M.....Maldives Islands
8R, VP3.....Guyana
8Z4.....Saudi Arabia/Iraq Neutral Zone
8Z5 (See 9K3)
9A1, (M1).....San Marino
*9G1, ZD4.....Ghana
9H1, ZB1.....Malta
9J2, VQ2.....Zambia
9K2.....Kuwait
9K3, 8Z5.....Kuwait/Saudi Arabia Neutral Zone
9L1, ZD1.....Sierra Leone
*9M2.....Malaya
*9M4 (See VS1)
*9M6, 8.....East Malaysia
9N1.....Nepal
9Q5, OQ5, 0.....Rep. of the Congo
*9S4.....Saar
*9U5.....Burundi
*9U5.....Ruanda-Urundi
9V1 (See VS1)
*9X5.....Rwanda
9Y4, VP4.....Trinidad & Tobago
*.....Blenheim Reef
*.....Geyser Reef



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TELEGRAPHERS' ABBREVIATIONS IN CURRENT USE

— denotes short space, as in American Morse o, ee; c, te; &, es.
— denotes letters sent together, as in ar, sent .-.-.

- A -

aa	all after
ab	all before
abl	able
abt	about
ads, adr	address
adv	advise
af	Africa
aftmn	afternoon
agn	again
ahd	ahead
alng	along
am	amplitude modulation
ani	any
anr	another
ant	antenna
app	appreciate
ar	end of message
as, as m	wait, wait a minute
au	fractions follow
aw	auf wiedersehn (Ger), see you later

- B -

b	be
b4	before
balun	balanced-to-unbalanced
bc, bcl	broadcast, broadcast listener
bcnu	be seeing you
bd	buenos dias (Sp), bad
bda	birthday
bee, ba, bth	both, as in "u5 bee", up both (Morse)
bfo	beat frequency oscillator
bjr	bon jour (Fr)
bk, bkg	back, break, black, book, breaking
bkr	breaker, circuit-breaker
bn	been, brown, between, buenas noches (Sp)
bq	answer to rq (request)
brg, bmg	bearing, heading
bsr	bon soir (Fr)
btr	better
buk	book

- C -

c	yes
cd	card, could
cd, cud, cdnt	could, couldn't
cfm, cfm	confirm, confirming
ck	check
ckt, cct	circuit
cl, clg	call, calling, closed
clbk	callbook
clix	clicks
clr	clear
cndx, condx, cdx	conditions
cmt, cnti, cnty	count, county
cnvn	convention
coz, cos, cuz, becuz	because
cpi	copy
cq	general call to all stations
cs	call sign, call letters
cua, cuagn	see you again
cul	see you later
cum, cm, cmg	come, coming
cupla	a couple of
cw	continuous wave, manual keying

- D -

da	day
dbl	double
dcn	direction
dct	direct
de	from
df	direction finder
dif, diff	difference
dlr, dld	dealer, deliver, delivered
dn, d	down (in frequency)
dnt, dmi	do not, don't mention it
dpe	dope, information
dr	dear
ds	thanks, danke schon (Ger)
dsnt	does not
dsw	goodbye, do svidaniya (Russian)
dunno	don't know
dx	distance, or rare station
dxpdn	dx expedition

- E -

em	old man
eh	?
el, els	antenna element(s)
em	them
eni, enibdi, enihw	any, anybody, anyhow
ere	here
es, es	and (from Morse "&", sent)
eta	estimated time of arrival
etd	estimated time of departure
eu	Europe

- F -

fb, vfb	fine business, good (enthusiastic approval)
fd	field day, feed, food
fer	for
fiver	QSA-5
fld	field, filed
flr	floor
fm, fm	from, frequency modulation
fnd	friend, find, found
fni	funny
foxes	teleprinter test tapes
freq, fq	frequency
fwd	forward
fyi	for your information

- G -

ga	good afternoon, go ahead
gb	good bye
gd	good day, good
ges, gess	guess
gg	going
gl	good luck

- G - (Cont.)

gld	glad
gn, gng	gone, green, going
gnd	ground
gotta	got to, have to, must
gp	ground plane, group (word)
grs	groups (as in msg code groups)
gud	good
gtgs	greetings
gv, gvg	give, giving

- H -

hd, hrd	had, hard, heard
hdg	heading, antenna azimuth
hed	he would
hi	high, laughter, (sometimes !)
hlo	hello
hly	hasta la vista (Sp), see you later
hpe, hpg	hope, hoping
hpi	happy
hpn, wa hpn	happen, what happened
hq, hqtrs	headquarters
hr, hrg, hrs	here, hear, hour, hearing, here is, hours
hv, hvnt, hvg	have, haven't, having
hvi	heavy
hw, hws	how? how is?

- I -

i?	ready? here goes the tape
id	I would
ie	clear? (response: i-go, e-wait)
im	I'm, him, intermodulation
iml	?
info	information
irpt	I repeat

- K -

k	go ahead, end of transmission
ka	beginning of transmission (formal)
klix	clicks
klvb	que (ke) le vaya bien (Sp) "That it goes well with you"
kn	go ahead, but only the station(s) called, I will answer no other calls, known
knw	know

- L -

lkg	looking
ll	landline, telephone or telegraph
lng	long
lotsa	lots of
lp	long path (long way around earth)
lsn	listen
ltr	letter, later
lv, lvg	leave, leaving
lw	long wave, "lone wolf" (independent DXer)

- M -

mag, rag	magazine
mci, mci bcp	merci, merci beaucoup (Fr), thanks
mgr	manager
mi	my
mil, mill, ma	milliampere, typewriter
min	minute, minimum
mk	mark (opposite of space)
ml, mlg	mail, mailing
mng	morning, meaning
mni	many
mnl	manual
mo	moment
msg	message

- N -

n	no
nd	nothing doing
ng	no good
nil	nothing
nir	lazy "nil"
nm	nothing more, no more
nn	noon
no	know
nr	near, number
nvr	never
nw	now

- O -

ob, eeb	old boy
oc	old chap
ok, eek	all correct
ol	old lady
om, eem	old man
op, opr	operator
opn, opg	operation, operating
ot	old timer

- P -

pa	power amplifier
pbl, pbli	probable, preamble, probably
pctcs	practices
pd	period, paid
pdn	pure dc, clean note
pkg	package, parking
plsr	pleasure
ppgn	propagation
ppl	people
prtbl	portable
pse, pls, psd	please, pleased
psbl, psbli	possible, possibly
psn, posn	position
pt, ptd, ptg	point, part, pointed, pointing
pwr	power

- Q -

qhm	tuning from high frequency to middle of band
qlf	try sending with left foot awhile
qlm	tuning from low frequency to middle of band
qlz	operator too lazy
qmh	tuning from middle frequency to high frequency
qml	tuning from middle frequency to low frequency
qmt	try mailing your tlc
qmn	man-made electrical noise
qsl	mail card confirming qso
qsl	send card after receiving mine
qst	of interest to all amateurs

- R -

r	received
rac	rectified ac
rc	rag chew
rcd, recd	received
rcr, recr, rcvr, rx	receiver
rd	read (copy), red
rdi, rdy	ready
rdo	radio, radio station
re	concerning
reg, regs	regular, regulations
rito	righto
rm	room
rng	running
rockbound, rockbnd	crystal controlled, no vfo
rpt	report, repeat
rq	request
rst	readability 1-5, strength 1-9, tone 1-9

- S -

sa, sez, sed, sa	say, says, said, South America
sae	self-addressed envelope
sase	self-addressed stamped envelope
sb, ssb	single sideband
sgd	signed
shd, shud, shudn't	should, shouldn't
sig, sigs	signal(s), signature
simo	simultaneously
sked	schedule
sl	see you later
sn	soon, seen, signal/noise
sp	short path (the closer great-circle path)
sri	sorry
ss	sweepstakes
ssn	season, as in "ssns gtgs"
stn	station
su	I'll see you
sum	some
sumbdi	somebody
svc	service
svl	several
sw	switch, short wave
sx	dollar sign "\$"

- T -

tbl, trbl	trouble
tf	traffic, messages
thr	there, their
tmw	tomorrow
tng	tuning, thing
tnk	think
tnsmn	transmission
tr	transit, position, there, transmit/receive
T/R	transmit/receive
trix	tricks
tt, tts	that, that is
tu,tku,tnx,tk	thank you, thanks
tv, tvi	television, television interference
twx	telegram
tx, trans	transmitter

- U -

u, up	you, upward in frequency
ufb	vfb, very fine business (Rus)
uk	United Kingdom
ul, ud	you will, you would
undld	undelivered
unhrd	unheard
ur, urs	your, yours
ut	universal time, GMT, "Zebra" time

- V -

va	signing off (same as sk)
vert	vertical
vfb	very fine business
vfo	variable-frequency oscillator
vjo	viejo (Sp), old man
vox	voice-operated switch
vy, vri	very
vxo	variable crystal oscillator

- W -

w, wt	watt
wa	word after
wat, watsa	what, what do you say?
wb	word before
wd	word, would
wee	who?
wed	we would
wh	white
wid	with
wilco	will comply, will do
wk, wkg	week, weak, work, working, QSOing
wri	worry
wx, wea	weather

- X -

xtl	crystal
xtr, xmt	transmitter
xq	fill, or repeat of unreceived copy

- Y -

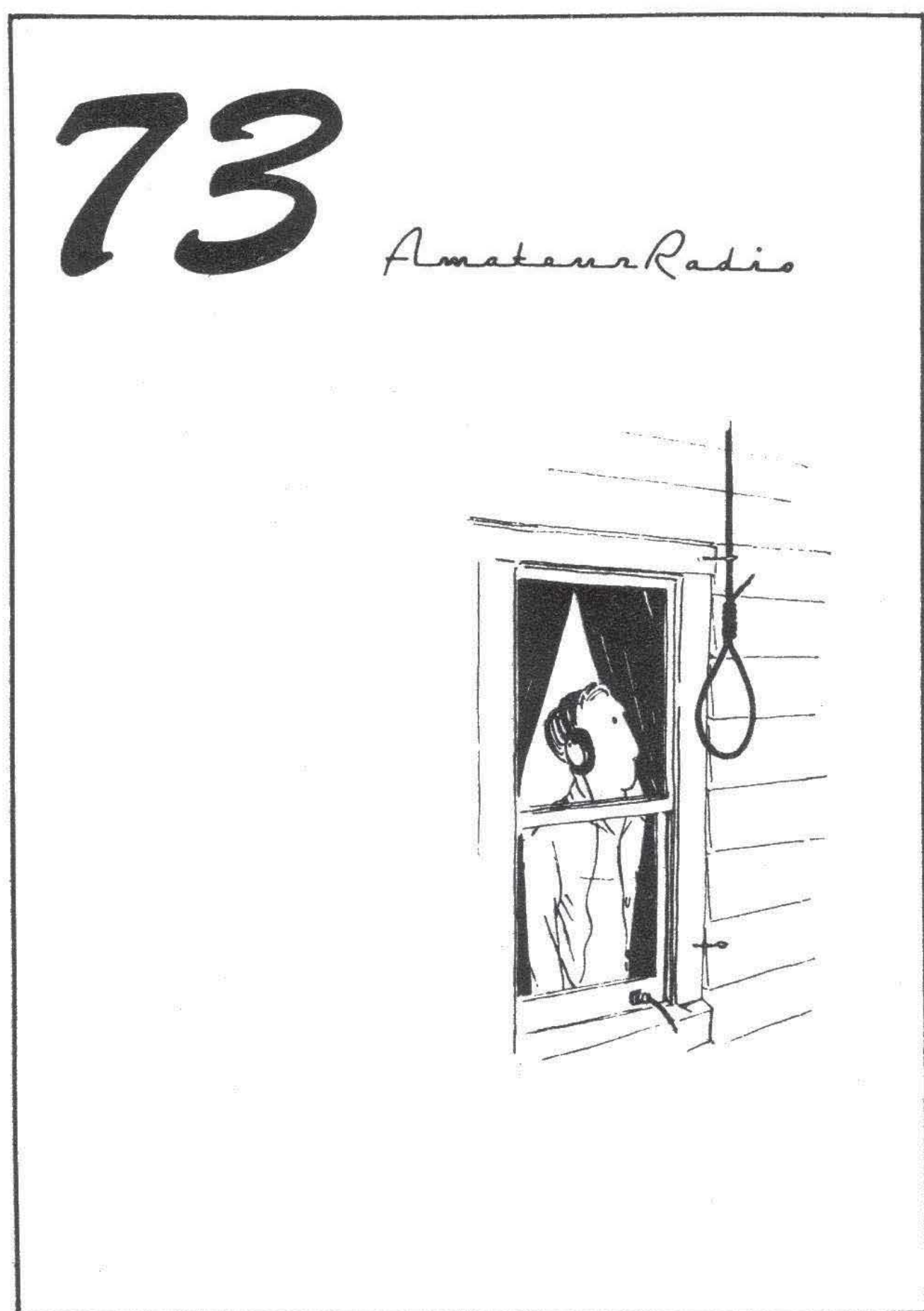
yda	yesterday
yl, xyl	young lady, married young lady
yr	year, your

- Z -

z	Greenwich Mean Time, UT, "zebra"
zedder	New Zealander
zil	zone of the interior (continental USA)
zilch	nothing

NUMBER CODE:	1 - a	6 - 6
	2 - u	7 - b
	3 - v	8 - d
	4 - 4	9 - n
	5 - e	0 - t

73	best wishes
88	love and kisses
99 (rare)	keep out



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	ATLANTA, GA.	BIRMINGHAM, ALA.	BISMARCK, N. D.	BOSTON, MASS.	BUFFALO, N. Y.	CHARLESTON, W. VA.	CHEYENNE, WYO.	CHICAGO, ILL.	CLEVELAND, OHIO	COLUMBIA, S. C.	DALLAS, TEXAS	DENVER, COLORADO	DES MOINES, IOWA	DETROIT, MICH.	EL PASO, TEXAS	HELENA, MONTANA	HOUSTON, TEXAS	INDIANAPOLIS, IND.	JACKSONVILLE, FLA.	KANSAS CITY, MO.	LITTLE ROCK, ARK.	LOS ANGELES, CALIF.	LOUISVILLE, KY.	MIAMI, FLORIDA	MILWAUKEE, WIS.	MINNEAPOLIS, MINN.	NASHVILLE, TENN.	NEW ORLEANS, LA.	NEW YORK, N. Y.	NORFOLK, VA.	PHILADELPHIA, PA.	PHOENIX, ARIZONA	PITTSBURGH, PA.	ST. LOUIS, MO.	SALT LAKE CITY, UTAH	SAN FRANCISCO, CALIF.	SEATTLE, WASHINGTON	WASHINGTON, D. C.	WILMINGTON, N. C.
ATLANTA, GA.		264	322	47	24	25	301	343	15	86	269	297	320	7	271	310	251	347	145	306	281	281	347	154	345	331	321	234	48	64	48	278	27	318	296	289	308	48	84
BIRMINGHAM, ALA.	82		326	50	31	40	304	356	26	84	268	299	328	17	270	312	246	5	125	314	287	281	10	142	355	338	0	219	52	67	53	278	37	333	298	290	309	53	83
BISMARCK, N. D.	132	137		92	97	115	209	114	105	124	167	205	133	104	198	273	165	119	132	148	150	233	123	135	109	108	131	151	99	111	102	217	106	134	237	249	282	107	119
BOSTON, MASS.	236	241	291		277	247	278	273	267	226	254	275	275	274	262	293	246	263	220	268	253	273	256	207	278	286	249	237	235	219	233	268	258	262	280	280	295	236	217
BUFFALO, N. Y.	208	217	291	92		206	273	264	237	192	241	269	268	261	252	290	231	243	191	258	237	267	231	184	274	286	225	219	118	160	134	261	199	248	276	276	293	159	174
CHARLESTON, W. VA.	208	223	307	61	24		287	309	359	174	251	282	293	345	260	300	238	293	180	279	251	274	270	174	316	311	245	223	66	108	71	269	31	275	286	282	301	80	143
CHEYENNE, WYO.	108	112	26	76	76	91		81	81	103	140	187	83	79	189	319	143	90	113	101	119	241	95	119	76	62	104	128	81	92	83	219	84	98	268	262	303	87	100
CHICAGO, ILL.	161	175	302	82	78	125	272		93	144	221	266	268	80	242	293	210	151	155	245	208	262	157	156	350	308	173	190	91	116	97	254	101	212	274	272	295	106	131
CLEVELAND, OHIO	197	209	297	80	55	179	277	277		176	240	272	275	310	252	293	228	245	180	261	235	268	226	175	290	296	219	214	95	136	105	262	127	250	278	277	296	124	156
COLUMBIA, S. C.	268	267	317	41	10	354	299	329	356		270	295	311	350	271	308	256	326	189	300	279	282	320	174	331	323	297	246	39	53	37	279	7	305	295	290	307	33	85
DALLAS, TEXAS	81	82	349	57	49	61	325	36	50	80		319	15	45	266	325	157	47	97	15	61	280	55	112	32	11	65	115	60	71	61	277	55	40	308	291	315	63	80
DENVER, COLORADO	103	107	22	73	72	87	6	75	77	99	134		74	74	189	325	138	84	109	91	112	246	90	116	70	55	98	124	78	88	80	224	80	91	283	267	308	83	96
DES MOINES, IOWA	134	144	318	80	78	105	271	84	87	123	197	262		81	231	297	187	105	135	197	171	257	116	141	69	5	133	165	87	104	91	247	92	137	273	270	296	97	115
DETROIT, MICH.	188	200	295	86	79	164	273	263	129	168	233	268	268		248	291	222	224	174	254	227	265	208	171	282	292	206	207	100	133	109	258	128	238	275	274	294	124	151
EL PASO, TEXAS	77	78	14	58	54	64	8	50	56	76	79	8	42	53		345	98	57	86	48	71	285	62	97	46	33	68	92	61	69	62	290	59	57	335	298	327	64	75
HELENA, MONTANA	112	116	85	84	88	100	133	97	93	108	134	141	105	92	162		136	101	115	115	122	203	105	119	94	91	111	127	89	98	92	180	94	109	179	224	283	95	104
HOUSTON, TEXAS	64	60	348	50	40	49	329	25	39	67	338	325	6	34	285	327		34	84	3	26	288	40	103	22	5	46	86	52	60	53	289	45	24	314	297	319	5	68
INDIANAPOLIS, IND.	166	185	308	72	58	110	281	332	62	143	234	276	290	41	250	298	220		157	267	226	267	168	158	338	316	188	199	80	107	85	261	80	251	281	277	298	94	127
JACKSONVILLE, FLA.	327	309	324	33	9	1	308	339	0	8	286	304	323	355	282	314	273	340		314	300	288	338	163	341	332	326	271	29	34	28	287	8	323	303	295	312	23	39
KANSAS CITY, MO.	120	129	332	72	67	90	288	60	73	111	196	278	15	66	236	306	184	82	126		157	262	95	134	50	9	113	157	78	93	81	253	79	97	282	275	302	85	105
LITTLE ROCK, ARK.	97	104	335	59	48	65	307	26	48	92	243	300	352	41	260	315	208	43	114	338		276	55	128	21	356	71	158	62	76	64	271	56	22	297	286	309	67	89
LOS ANGELES, CALIF.	81	82	41	62	61	70	52	62	65	79	88	57	60	62	100	19	96	67	87	67	81		70	94	59	52	76	92	65	71	66	95	67	69	35	319	348	68	78
LOUISVILLE, KY.	166	190	313	66	47	87	287	339	43	137	242	282	301	26	256	302	227	348	156	280	239	271		158	342	322	202	205	71	98	75	266	63	278	285	281	301	82	120
MIAMI, FLORIDA	337	326	329	22	3	355	313	342	356	355	302	310	329	353	291	318	290	342	345	321	315	293	341		342	335	334	298	18	16	15	293	1	330	308	299	315	11	13
MILWAUKEE, WIS.	162	175	297	87	88	132	267	170	107	147	218	261	253	99	239	290	207	157	156	235	204	259	160	157		298	172	188	98	121	103	251	111	203	271	270	293	113	135
MINNEAPOLIS, MINN.	145	154	291	91	96	123	248	125	108	135	193	242	184	105	227	283	186	132	144	189	175	248	137	146	114		148	169	99	116	104	237	110	159	259	261	287	111	127
NASHVILLE, TENN.	140	180	320	59	40	61	295	354	36	114	251	290	318	24	261	307	231	8	142	298	254	275	22	150	353	333		205	63	83	65	271	50	313	291	285	305	68	103
NEW ORLEANS, LA.	50	37	337	46	32	38	318	9	28	60	299	313	347	22	283	321	270	17	86	339	339	288	22	114	7	351	23		46	56	47	287	35	359	308	296	315	47	64
NEW YORK, N. Y.	233	240	296	54	303	251	281	281	280	223	255	278	280	286	262	294	244	269	213	271	253	274	259	202	287	293	251	237		205	229	269	269	266	283	282	297	235	208
NORFOLK, VA.	249	253	306	35	342	291	290	303	319	236	264	286	295	318	268	301	253	294	217	285	267	279	284	198	308	307	269	244	25		16	274	322	284	289	286	302	343	208
PHILADELPHIA, PA.	233	240	298	52	317	255	283	285	289	221	255	279	283	294	263	296	246	273	212	273	255	275	263	199	292	296	252	235	49	197		270	279	269	284	282	298	235	203
PHOENIX, ARIZONA	80	83	29	61	59	69	35	58	62	79	89	40	55	59	108	0	100	64	89	62	80	277	70	97	55	45	74	93	64	72	66		64	66	1	300	334	68	79
PITTSBURGH, PA.	210	221	300	72	18	213	280	286	308	188	246	276	281	310	257	295	235	264	189	268	244	271	246	181	296	299	234	222	85	140	96	265		261	281	279	297	123	165
ST. LOUIS, MO.	134	150	320	70	60	90	287	30	63	119	224	280	319	53	248	303	207	68	137	280	204	267	94	143	20	342	130	179	75	95	79	260	74		284	278	301	84	110
SALT LAKE CITY, UTAH	99	101	50	73	74	86	83	79	78	95	118	98	80	76	152	359	123	84	103	91	104	220	88	109	75	67	95	114	78	86	80	181	80	90		254	315	83	92
SAN FRANCISCO, CALIF.	86	86	54	66	67	75	70	70	70	83	96	75	70	68	109	39	101	73	90	77	88	136	77	96	67	62	81	97	69	76	71	114	71	77	66		1	73	81
SEATTLE, WASHINGTON	103	105	87	81	84	94	111	92	89	100	118	116	97	88	136	96	120	95	105	103	109	165	97	109	90	88	102	114	85	92	87	147	89	100	128	181		90	97
WASHINGTON, D. C.	233	240	302	52	342	263	285	293	307	215	256	281	287	308	263	298	245	280	205	277	257	275	268	192	300	302	254	235	53	163	53	270	305	273	285	283	300		1

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WORLD TIME CONVERSION CHART IN HOURS

Greenwich Meridian Time. London, Eng- land.	Central Europe. Ber- lin, Geneva, Stock- holm, Vienna.	Eastern Europe. Ath- ens, Cape Town, Cairo, Moscow	Arabia, Armenia, Ethiopia, Madagas- car.	Mauritius, Iran, Reunion Island.	Central Russia, Bom- bay, India.	Calcutta, Novosi- birsk Russia, Tibet.	Sumatra, Thailand, Laos.	Philippines. Perth, Australia	Central Australia. Tokyo, Japan.	Eastern Australia. Melbourne, Sydney.	New Caledonia. New Zealand.	International Date Line. Fiji Islands.	Norfolk, Alaska. Samoa Islands.	Hawaii. Midway Islands.	Eastern Alaska. Dawson	Pacific Standard Time. Los Angeles, Seattle, Juneau.	Mountain Standard Time. Calgary, Denver, Phoenix.	Central Standard Time. Chicago, Costa Rica.	Eastern Standard Time. Montreal, New York, Peru.	Atlantic Standard Time. Argentina, Nova Scotia.	Greenland. Rio de Janeiro, Brazil.	Azores.	Iceland. Canary Islands.
0000	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM
0100	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night
0200	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM
0300	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM
0400	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM
0500	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM
0600	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM
0700	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM
0800	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM
0900	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM
1000	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM
1100	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM
1200	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM
1300	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon
1400	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM
1500	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM
1600	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM
1700	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM
1800	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM
1900	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM
2000	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM
2100	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM
2200	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM
2300	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM

With this chart you can convert standard time in any time zone to GMT or tell what time it is in other parts of the world. To correctly use this chart visualize each horizontal line as a complete circle. From your time zone tracing horizontally to the right (Counter Clockwise) it will be tomorrow when you pass midnight and yesterday when you pass the international date line. To the left (Clockwise) it will be yesterday when you pass midnight and tomorrow when you pass the international date line. There is no change in date when you pass both midnight and the international date line going in one direction. For instance at 8 PM in New York Eastern Standard Time it is 2 AM tomorrow in Berlin, Germany and 11 AM tomorrow in Sydney, Australia. Always trace in the shortest direction from your time zone to find what time it is in any other zone.

INTERNATIONAL POSTAL RATES

The following postal rates cover QSL cards, first class letters and air mail letters from the United States to Countries outside of the United States and Possessions.

FIRST CLASS RATES are the rate for the first ounce. If the rate indicated is 13¢, add 8¢ for each additional ounce or fraction; if the rate indicated is 6¢ add 6¢ for each additional ounce or fraction.

AIR MAIL RATES are the rate for each half ounce, except where indicated.

QSL CARDS and AEROGRAMMES (air letter sheets) may be sent to any country in the world by air mail for 13¢ (exception: to Canada and Mexico, QSL cards are 8¢ by air mail).

INTERNATIONAL REPLY COUPONS of United States issue may be purchased at United States post offices for 15¢ each. Each coupon is exchangeable at a post office in any country for a stamp or stamps representing the international postage on a single rate surface letter. The column marked "(Air) IRC" indicates the number of international reply coupons required to prepay an air mail letter of the first weight unit from the countries indicated to the United States.

These rates include all revisions up to press time of this issue.

	QSL cards	First class	Air mail	(Air) IRC		QSL cards	First class	Air mail	(Air) IRC		QSL cards	First class	Air mail	(Air) IRC
Afghanistan.....	.08	.13	.25	5	Gibraltar (Great Britain).....	.08	.13	.20	2	Pakistan.....	.08	.13	.25	2
Aland Is. (Finland).....	.08	.13	.20	2	Gilbert and Ellice Is.....	.08	.13	.25	5	Panama.....	.08	.13	.15	2
Albania.....	.08	.13	.20	4	Great Britain.....	.08	.13	.20	2	Papua Territory (Australia).....	.08	.13	.25	3
Algeria.....	.08	.13	.20	2	Greece (incl. Crete).....	.08	.13	.20	2	Paraguay.....	.08	.13	.15	3
Andorra.....	.08	.13	.20	2	Greenland (Denmark).....	.08	.13	.20	2	Persian Gulf Ports.....	.08	.13	.25	4
Angola.....	.08	.13	.25	3	Guadalupe Is.....	.08	.13	.15	2	Peru.....	.08	.13	.15	
Argentina.....	.08	.13	.15	3	Guatemala.....	.08	.13	.15	2	Philippines.....	.08	.13	.25	3
Ascension Is. (Great Britain).....	.08	.13	.15	3	Guinea, Portuguese.....	.08	.13	.25	2	Pitcairn Is. (Great Britain).....	.08	.13	.25	
Australia.....	.08	.13	.25	3	Guinea, Republic of.....	.08	.13	.25	2	Poland.....	.08	.13	.20	2
Austria.....	.08	.13	.20	2	Guyana.....	.08	.13	.15	3	Portugal.....	.08	.13	.20	2
Azores Is. (Portugal).....	.08	.13	.20	2										
					Haiti.....	.08	.13	.15	5	Qatar.....	.08	.13	.25	4
Bahama Is. (Great Britain).....	.08	.13	.15		Honduras.....	.08	.13	.15	3	Reunion Is. (France).....	.08	.13	.25	3
Balearic Is. (Spain).....	.08	.13	.20	2	Hong Kong.....	.08	.13	.25	5	Rhodesia.....	.08	.13	.25	5
Barbados Is. (West Indies).....	.08	.13	.15	3	Hungary.....	.08	.13	.20	3	Rio Muni (Spain).....	.08	.13	.25	3
Belgium.....	.08	.13	.20	2						Rumania.....	.08	.13	.20	4
Bermuda Is.....	.08	.13	.15	3	Iceland.....	.08	.13	.20	2	Rwanda.....	.08	.13	.25	2
Bhutan.....	.08	.13	.25	4	Ifni (Spain).....	.08	.13	.25	2	Ryukyu Is.....	.08	.13	.25	5
Bolivia.....	.08	.13	.15	2	India.....	.08	.13	.25	4					
Botswana.....	.08	.13	.25	5	Indonesia.....	.08	.13	.25		Sabah (Malaysia).....	.08	.13	.25	5
Brazil.....	.08	.13	.15	4	Iran.....	.08	.13	.25	4	St. Helena Is. (Great Britain)...	.08	.13	.25	3
British Honduras.....	.08	.13	.15	2	Iraq.....	.08	.13	.25	3	St. Pierre and Miquelon Is. (Fr.)...	.08	.13	.15	2
Brunei.....	.08	.13	.25	7	Ireland (Eire).....	.08	.13	.20	3	Samoa, Western (Great Britain)...	.08	.13	.25	4
Bulgaria.....	.08	.13	.20	3	Israel.....	.08	.13	.25	3	Sarawak (Malaysia).....	.08	.13	.25	5
Burma.....	.08	.13	.25	4	Italy.....	.08	.13	.20	2	Saudi Arabia.....	.08	.13	.25	3
Burundi.....	.08	.13	.25	3	Ivory Coast.....	.08	.13	.25	2	Senegal.....	.08	.13	.25	2
										Seychelles Is. (Great Britain)...	.08	.13	.25	4
Cambodia.....	.08	.13	.25	3	Jamaica.....	.08	.13	.15	2	Sierra Leone.....	.08	.13	.25	3
Cameroon.....	.08	.13	.25	2	Japan.....	.08	.13	.25	2	Solomon Is. (Great Britain).....	.08	.13	.25	5
Canada.....	.05	.06	.10*	2	Jordan.....	.08	.13	.25	3	Somali Republic.....	.08	.13	.25	
Canary Is. (Spain).....	.08	.13	.20	2						South Africa.....	.08	.13	.25	5
Cape Verde Is. (Portugal).....	.08	.13	.25	3	Kenya.....	.08	.13	.25	5	South-West Africa (Namibia)...	.08	.13	.25	5
Cayman Is. (West Indies).....	.08	.13	.15	3	Korea.....	.08	.13	.25	3	South Yemen.....	.08	.13	.25	5
Central African Republic.....	.08	.13	.25	2	Kuwait.....	.08	.13	.25	4	Spain.....	.08	.13	.20	2
Ceylon.....	.08	.13	.25	5						Spanish Sahara.....	.08	.13	.25	2
Chad.....	.08	.13	.25	2	Laos.....	.08	.13	.25		Sudan.....	.08	.13	.25	3
Chile.....	.08	.13	.15		Lebanon.....	.08	.13	.25	3	Surinam.....	.08	.13	.15	1
China (Taiwan).....	.08	.13	.25	3	Leeward Is. (West Indies).....	.08	.13	.15	3	Sweden.....	.08	.13	.20	
China (Mainland).....	.08	.13	.25	3	Lesotho.....	.08	.13	.25	5	Switzerland.....	.08	.13	.20	2
Colombia.....	.08	.13	.15	4	Liberia.....	.08	.13	.25	5	Syria.....	.08	.13	.25	3
Comoro Is. (France).....	.08	.13	.25	3	Libya.....	.08	.13	.20	2					
Congo (Brazzaville).....	.08	.13	.25	2	Liechtenstein.....	.08	.13	.20	2	Tanzania.....	.08	.13	.25	5
Congo (Kinshasa).....	.08	.13	.25		Luxembourg.....	.08	.13	.20	2	Tasmania (Australia).....	.08	.13	.25	3
Cook Is. (New Zealand).....	.08	.13	.25	3						Thailand.....	.08	.13	.25	3
Corsica (France).....	.08	.13	.20	2	Macao (Portugal).....	.08	.13	.25	3	Timor (Portugal).....	.08	.13	.25	4
Costa Rica.....	.08	.13	.15	2	Madeira Is. (Portugal).....	.08	.13	.20	2	Togo.....	.08	.13	.25	2
Cuba.....	.08	.13	.15	4	Malagasy Republic (Madagascar)...	.08	.13	.25	3	Tonga Is. (Great Britain).....	.08	.13	.25	3
Cyprus.....	.08	.13	.25	4	Malawi.....	.08	.13	.25	6	Trinidad and Tobago Is. (Britain)...	.08	.13	.15	3
Czechoslovakia.....	.08	.13	.20	2	Malaysia.....	.08	.13	.25	5	Tristan de Cunha & Gough Is....	.08	.13	.25	5
					Maldives Is.....	.08	.13	.25	5	Tunisia.....	.08	.13	.20	2
Dahomey.....	.08	.13	.25	2	Mali Republic.....	.08	.13	.25	2	Turkey.....	.08	.13	.20	3
Denmark.....	.08	.13	.20	2	Malta (Great Britain).....	.08	.13	.20	3	Turks & Caicos Is. (Great Britain)...	.08	.13	.15	2
Dominican Republic.....	.08	.13	.15	2	Martinique (France).....	.08	.13	.15	2					
					Mauritania.....	.08	.13	.25	2	Uganda.....	.08	.13	.25	5
Ecuador.....	.08	.13	.15	3	Mauritius (Great Britain).....	.08	.13	.25	3	United States of America -				
Egypt (United Arab Republic)...	.08	.13	.20	2	Mexico.....	.05	.06	.10*	2	Domestic rates only.....	.05	.06	.10*	
El Salvador.....	.08	.13	.15	2	Morocco.....	.08	.13	.20	2	U. S. S. R.....	.08	.13	.25	
Ethiopia.....	.08	.13	.25	3	Mozambique.....	.08	.13	.25	3	Upper Volta.....	.08	.13	.25	2
					Muscat and Oman.....	.08	.13	.25	4	Uruguay.....	.08	.13	.15	4
Faeroe Is. (Denmark).....	.08	.13	.20	2										
Falkland Is. (Great Britain).....	.08	.13	.20	3	Nauru Is.....	.08	.13	.25	3	Vatican City.....	.08	.13	.20	2
Fiji Is. (Great Britain).....	.08	.13	.25	4	Nepal.....	.08	.13	.25	5	Venezuela.....	.08	.13	.15	2
Finland.....	.08	.13	.20	2	Netherlands.....	.08	.13	.20	2	Vietnam.....	.08	.13	.25	2
France.....	.08	.13	.20	2	Netherlands Antilles.....	.08	.13	.15	1					
French Guiana.....	.08	.13	.15	2	New Caledonia (France).....	.08	.13	.25	2	West Irian (Indonesia).....	.08	.13	.25	
French Polynesia Is.....	.08	.13	.25	2	New Guinea, N.E. (Australia)...	.08	.13	.25	3	Windward Is. (West Indies).....	.08	.13	.15	3
French Somaliland.....	.08	.13	.25	2	New Hebrides Is.....	.08	.13	.25	2					
					New Zealand.....	.08	.13	.25	3	Yemen.....	.08	.13	.25	
Gabon.....	.08	.13	.25	2	Nicaragua.....	.08	.13	.15	4	Yugoslavia.....	.08	.13	.20	3
Gambia.....	.08	.13	.25	4	Niger.....	.08	.13	.25	2					
Germany, Western Zone.....	.08	.13	.20	2	Nigeria.....	.08	.13	.25	3	Zambia.....	.08	.13	.25	5
Germany, Eastern Zone.....	.08	.13	.20	2	Northern Ireland.....	.08	.13	.20	2	Zanzibar.....	.08	.13	.25	5
Ghana.....	.08	.13	.25	3	Norway.....	.08	.13	.20	2					

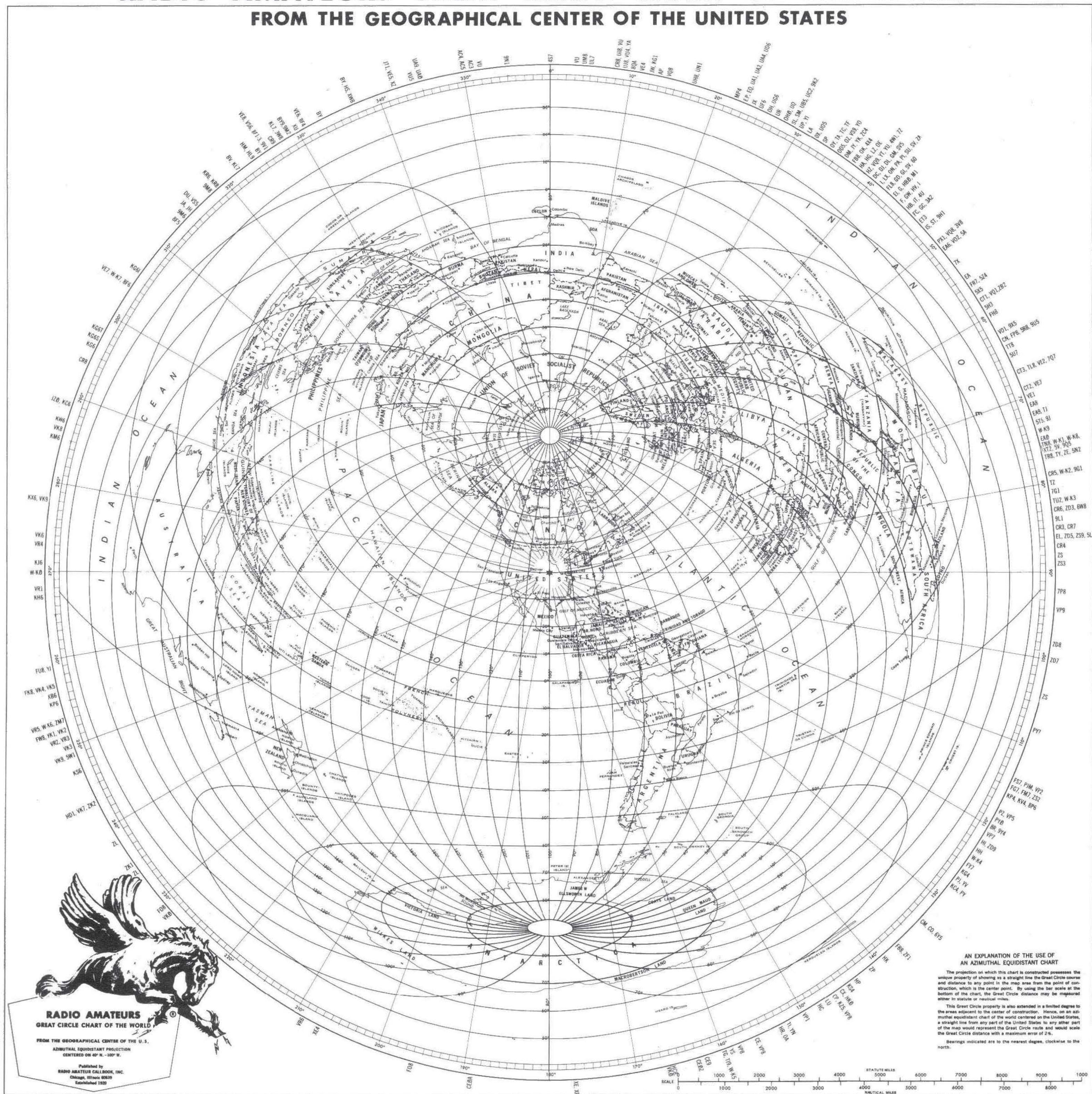
* Rate per ounce or fraction

THE GEOGRAPHICAL CENTER OF THE UNITED STATES

The table below shows the great circle bearing in degrees from the point indicated above to countries throughout the world having licensed radio amateurs. Where cities are shown the bearing to the nearest degree is given. These bearings were compiled from information supplied by the U. S. Coast and Geodetic Survey.

PREFIX	COUNTRY	BEARING	PREFIX	COUNTRY	BEARING	PREFIX	COUNTRY	BEARING
A2C	BOTSWANA, MAFEKING	91	KS4	SWAN IS.	146	VQ8	CHAGOS IS.	17
AC3	SIKKIM	353	KS6	U S SAMOA	248		MAURITIUS & RODRIGUEZ IS.	53
AC4	TIBET, LHASA	351	KV4	VIRGIN IS.	117	VQ9	SEYCHELLES IS.	40
AC5	BHUTAN	351	KW6	WAKE IS.	288	VR1	GILBERT, ELLICE & OCEAN IS.	270
AP	PAKISTAN, KARACHI	14	KX6	MARSHALL IS.	280	VR2	FIJI IS.	252
BV	TAIWAN, TAIPEI	323	KZ5	CANAL ZONE	145	VR3	FANNING & LINE IS.	253
BY	CHINA, CHUNGKING	337	LA	NORWAY, OSLO	32	VR4	SOLOMON IS.	270
	PEKING	334		SVALBARD IS.	13	VR5	TONGA IS.	245
	SHANGHAI	326		JAN MAYEN IS.	24	VR6	PITCAIRN IS.	210
CE	CHILE, SANTIAGO	156	LU	ARGENTINA, BUENOS AIRES	148	VS5	BRUNEI	317
CE0A	EASTER IS.	190	LX	LUXEMBOURG	42	VS6	HONG KONG	328
CE0Z	JUAN FERNANDEZ IS.	163	LZ	BULGARIA, SOFIA	39	VU	INDIA, BOMBAY	9
CM,CO	CUBA, HAVANA	136	M1	SAN MARINO	44		CALCUTTA	353
CN	MOROCCO, CASABLANCA	62	MP4	MUSCAT & OMAN, MASQAT	23		NEW DELHI	4
CP	BOLIVIA, LA PAZ	147	OA	PERU, LIMA	154	VU4	LACCADIVE IS.	10
CR3	PORTUGUESE GUINEA	85	OD5	LEBANON, BEIRUT	37	VU5	ANDAMAN & NICOBAR IS.	346
CR4	CAPE VERDE IS.	87	OE	AUSTRIA, VIENNA	39	XE,XF	MEXICO, MEXICO CITY	182
CR6	ANGOLA, NOVA LISBOA	84	OH	FINLAND, HELSINKI	26	XE4	REVILLAGIGEDO IS.	211
CR7	MOZAMBIQUE, LOURENCO MARQUES	86	OH0	ALAND IS.	28	XW8	LAOS	338
	MOZAMBIQUE	67	OK,OL	CZECHOSLOVAKIA, PRAGUE	38	XZ	BURMA, RANGOON	343
CR8	GOA	9	ON	BELGIUM, BRUSSELS	42	YA	AFGHANISTAN, KANDAHAR	14
CR8	TIMOR, IS.	296	OX	GREENLAND, GODTHAAB	32	YI	IRAQ, BAGHDAD	31
CR9	MACAO	328	OY	FAEROES IS.	35	YJ	NEW HEBRIDES, VILLA	261
CT1	PORTUGAL, LISBON	59	OZ	DENMARK, COPENHAGEN	34	YK	SYRIA	34
CT2	AZORES IS.	67	PA,PE,PI	NETHERLANDS, AMSTERDAM	40	YN	NICARAGUA, MANAGUA	155
CT3	MADEIRA IS.	68	PJ	NETHERLANDS ANTILLES	128	YO	RUMANIA, BUCHAREST	36
CX	URUGUAY, MONTEVIDEO	146	PJ2M	SINT MAARTEN	115	YS	EL SALVADOR, SAN SALVADOR	160
DC,DJ,DK	WEST GERMAN FEDERAL REP, BONN	41	PX1	ANDORRA	50	YU	YUGOSLAVIA, BELGRADE	39
DM	E. GERMAN DEMOCRATIC REP, BERLIN	37	PY	BRAZIL, BRASILIA	129	YV	VENEZUELA, CARACAS	127
DU	PHILIPPINES, MANILA	317		RIO DE JANEIRO	130	ZA	ALBANIA, TIRANA	42
EA	SPAIN, MADRID	55		NATAL	112	ZB2	GIBRALTAR	59
EA6	BALEARIC IS.	53	PY0	TRINDADE & MARTIM VAZ IS.	118	ZC4	CYPRUS	38
EA8	CANARY IS.	70	PZ	SURINAM	119	ZD3	GAMBIA	85
EA9	SPANISH SAHARA	70	SK,SL,SM	SWEDEN, STOCKHOLM	29	ZD5	SWAZILAND	88
EA0	RIO MUNI	75	SP	POLAND, WARSAW	34	ZD7	SAINT HELENA	101
EI	IRELAND, DUBLIN	43	ST	SUDAN, KHARTOUM	50	ZD8	ASCENSION IS.	100
EL,SL	LIBERIA, MONROVIA	87	SU	EGYPT, CAIRO	42	ZD9	TRISTAN DA CUNHA & GOUGH IS.	122
EP	IRAN, TEHRAN	24	SV	GREECE, ATHENS	42	ZE	SOUTHERN RHODESIA, SALISBURY	78
ET3	ETHIOPIA, ADDIS ABABA	49	SV5	DODECANESE IS.	41	ZK1	COOK IS.	235
	ASMARA	45	TA,TC	TURKEY, ANKARA	35	ZK2	NIUE IS.	244
F	FRANCE, PARIS	44	TF	ICELAND, REYKJAVIK	34	ZL1	NEW ZEALAND, AUCKLAND	238
FB8	AMSTERDAM AND ST. PAUL IS.	58	TG	GUATEMALA, GUATEMALA CITY	162	ZL2	WELLINGTON	235
	KERGUELEN IS.	143	TI	COSTA RICA	153	ZL3	CHRISTCHURCH	233
FC	CORSICA	47	TJ	CAMEROON, YAOUNDE	74	ZL4	DUNEDIN	232
FG7	GUADELOUPE	116	TL8	CENTRAL AFRICAN REP, BANGUI	68	ZP	PARAGUAY, ASUNCION	142
FH8	COMORO IS.	61	TN8	REPUBLIC OF CONGO, BRAZZAVILLE	78	ZS	SOUTH AFRICA, CAPE TOWN	104
FK8	NEW CALEDONIA, NOUMEA	255	TR8	GABON, LIBREVILLE	78		DURBAN	92
FL8	FRENCH SOMALILAND, DJIBOUTI	43	TT8	CHAD, FT. LAMY	65		JOHANNESBURG	90
FM7	MARTINIQUE	117	TU2	IVORY COAST, ABIDJAN	83	ZS2	PRINCE EDWARD & MARION IS.	117
FO8	FRENCH POLYNESIA, TAHITI	230	TZ	MALI REPUBLIC, BAMAKO	80	ZS3	SOUTH-WEST AFRICA, WINDHOEK	93
	CLIPPERTON IS.	201	UA1	SOVIET UNION, MOSCOW	23	3A	MONACO	47
FP8	ST. PIERRE & MIQUELON IS.	63	UA9,0	ASIATIC RUSSIAN S.F.S.R.	346	3V8	TUNISIA, TUNIS	50
FR7	REUNION IS.	58	UB5	UKRAINIAN S.S.R.	30	3W8	VIETNAM, SAIGON	329
FS7	SAINT MARTIN IS.	115	UC2	WHITE RUSSIAN S.S.R.	30	4S7	CEYLON, COLOMBO	2
FU8	NEW HEBRIDES, VILA	258	UD6	AZERBAIDZHAN S.S.R.	26	4W1	YEMEN	40
FW8	WALLIS & FUTUNA IS.	252	UF6	GEORGIAN S.S.R.	26	4X4,4Z4	ISRAEL	38
FY7	FRENCH GUIANA, CAYENNE	118	UG6	ARMENIAN S.S.R.	27	5A	LIBYA, TRIPOLI	52
G	ENGLAND, LONDON	43	UH8	TURKMEN S.S.R.	18	5H3	TANZANIA, DAR ES SALAAM	60
GC	CHANNEL IS.	46	UI8	UZBEK S.S.R.	11	5N2	NIGERIA, LAGOS	77
GD	ISLE OF MAN	42	UJ8	TADZHIK S.S.R.	10	5R8	MALAGASY REPUBLIC, TANANARIVE	64
GI	NORTHERN IRELAND, BELFAST	42	UL7	KAZAKH S.S.R.	13	5T5	MAURITANIA, NOUAKCHOTT	80
GM	SCOTLAND, GLASGOW	40	UM8	KIRGHIZ S.S.R.	5	5U7	NIGER, NIAMEY	73
GW	WALES	44	UN1	KARELO-FINNISH S.S.R.	19	5V	TOGO	79
HA,HG	HUNGARY, BUDAPEST	38	UD5	MOLDAVIAN S.S.R.	33	5W1	WESTERN SAMOA	249
HB	SWITZERLAND, BERN	44	UP	LITHUANIAN S.S.R.	30	5X5	UGANDA	60
HB0	LIECHTENSTEIN	43	UQ	LATVIAN S.S.R.	29	5Z4	KENYA, NAIROBI	58
HC	ECUADOR, QUITO	150	UR	ESTONIAN S.S.R.	27	60	SOMALI REPUBLIC, MOGADISHU	47
HC8	GALAPAGOS IS.	166	VE1	CANADA, HALIFAX	68	6W8	SENEGAL, DAKAR	84
HH	HAITI, PORT-AU-PRINCE	126	VE2	MONTREAL	65	6Y5	JAMAICA	133
HI	DOMINICAN REP, SANTO DOMINGO	122	VE3	TORONTO	69	7G1	REPUBLIC OF GUINEA, CONAKRY	86
HK	COLOMBIA, BOGOTA	141	VE4	WINNIPEG	5	70	SOUTH YEMEN, ADEN	41
HK0	SAN ANDRES & PROVIDENCIA IS.	146	VE5	SASKATOON	338	7P8	LESOTHO	94
HM,HL9	KOREA, SEOUL	325	VE6	EDMONTON	329	7Q7	MALAWI, ZOMBA	72
HP	PANAMA	146	VE7	VANCOUVER	307	7X	ALGERIA, ALGIERS	54
HR	HONDURAS, TEGUCIGALPA	156	VE8	FORT NELSON	329	7Z,HZ	SAUDI ARABIA, MECCA	40
HS	THAILAND, BANGKOK	338	VK1	AUSTRALIA, CANBERRA	252	8F1,2,3	JAVA, BATAVIA	319
HV	VATICAN CITY	45	VK2	SYDNEY	253	8F4	SUMATRA	326
I	ITALY, ROME	45	VK3	MELBOURNE	251	8F5	BORNEO	312
	TRIESTE	42	VK4	BRISBANE	258	8F6	CELEBES & MOLUCCA IS.	307
IS	SARDINIA	49	VK5	ADELAIDE	257	8P6	BARBADOS	117
IT	SICILY	48	VK6	PERTH	275	8R	GUYANA, GEORGETOWN	121
JA,JH	JAPAN, TOKYO	316	VK7	TASMANIA, HOBART	244	9G1	GHANA, ACCRA	80
JT1	MONGOLIA, ULAN BATOR	343	VK8	DARWIN	288	9H1	MALTA	49
JY	JORDAN	38	VK9	NORFOLK IS.	249	9I,9J	ZAMBIA, LUSAKA	78
JZ0	WEST IRIAN	289		NEW GUINEA, PAPUA, PORT MORESBY	278	9K2	KUWAIT	30
KB6	BAKER IS.	262	VK0	HEARD IS.	161	9L1	SIERRA LEONE, FREETOWN	86
KC4	NAVASSA IS.	130		MACQUARIE IS.	226	9M2	FEDERATION OF MALAYSIA	333
KC6	CAROLINE IS.	294	VO1	NEWFOUNDLAND, ST JOHNS	61	9M6	SABAH, NORTH BORNEO	315
KG4	GUANTANAMO BAY, CUBA	128	VO2	LABRADOR, HOPEDALE	45	9M8	SARAWAK	320
KG6	MARIANAS IS, GUAM	298	VP1	BRITISH HONDURAS	155	9N1	NEPAL, KATMANDU	356
KG6I	VOLCANO IS.	308	VP2	ANTIGUA	115	9Q5	REP. OF THE CONGO, KINSHASA	78
KG6S	SAIPAN IS.	298	VP5	TURKS & CAICOS IS.	120		LUBUMBASHI	75
KH6	HAWAII, HONOLULU	268	VP7	BAHAMA IS.	123		KISANGANI	66
KL7	ALASKA, ANCHORAGE	322	VP8	FALKLAND IS.	156	9U5	BURUNDI	65
	FAIRBANKS	328		SOUTH GEORGIA IS.	147	9V1	SINGAPORE	328
KM6	MIDWAY IS.	286		SOUTH ORKNEY IS.	155	9X5	RWANDA	65
KP4	PUERTO RICO	119	VP9	BERMUDA IS.	95	9Y4	TRINIDAD & TOBAGO IS.	121
KR6,8	RYUKYU IS, OKINAWA	319	VQ1	ZANZIBAR	60			

RADIO AMATEURS GREAT CIRCLE CHART OF THE WORLD FROM THE GEOGRAPHICAL CENTER OF THE UNITED STATES



This map available in 4 colors, size 30" x 25". See inside front cover and page 19.

ARRL Phonetic Alphabet

A	ADAM
B	BAKER
C	CHARLIE
D	DAVID
E	EDWARD
F	FRANK
G	GEORGE
H	HENRY
I	IDA
J	JOHN
K	KING
L	LEWIS
M	MARY
N	NANCY
O	OTTO
P	PETER
Q	QUEEN
R	ROBERT
S	SUSAN
T	THOMAS
U	UNION
V	VICTOR
W	WILLIAM
X	X-RAY
Y	YOUNG
Z	ZEBRA

ON GOOD PHONE OPERATING

1. **Listen much . . . with care.** Avoid distractions in your operating room. Tune the band well after each call.
2. **Time your calls; monitor your own frequency.** Call only when a station is free.
3. **Make short calls, with breaks to listen.** Speak clearly, at a steady, modest rate. Three short calls are better than one long one.
4. **Use push-to-talk technique . . . speak near the mike.** Watch the modulation indicator. Keep local background noise at a minimum.
5. **Make notes. Avoid missing points for comment.** Jot down topics to avoid repeats.
6. **Talk in connected thoughts and phrases.** Notes will help avoid mixing up subjects. Push-to-talk technique will keep brother amateurs from calling you a monologist.
7. **Speak naturally.** QSOs need not be cut and dried. Make them interesting. Avoid exhibitionism. Use proper operating form to promote efficiency in communication and add respect and prestige for your station.

Use of this standard list is recommended by ARRL. Haphazard selection of words often results in confusion. A degree of uniformity in use of phonetic words reflects favorably on your individual operating, and on the whole amateur service.

ARRL Communications Department.

SPECIAL ARRL QN SIGNALS FOR NET USE

QNA*	Answer in prearranged order.
QNB*	Act as relay Between and
QNC	All net stations Copy. I have a message for all net stations.
QND*	Net is Directed (controlled by net control station).
QNE*	Entire net please stand by.
QNF	Net is Free (not controlled).
QNG	Take over as net control station.
QNH	Your net frequency is High.
QNI	Net stations report In.* I am reporting into the net.
QNJ	Can you copy me? Can you copy ?
QNK*	Transmit messages for to
QNL	Your net frequency is Low.
QNM*	You are QRMing the net. Please stand by.
QNN	Net control station is * What station has net control ?
QNO	Station is leaving the net.
QNP	Unable to copy you (or).
QNQ*	Move frequency to . . . and wait for . . . to finish handling traffic. Then send him traffic for
QNR*	Answer . . . and Relay (or Receive) traffic.
QNS	Following Stations are in the net.* (Follow with list). Request list of stations in the net.
QNT	Leaving net Temporarily (or for . . . minutes).
QNU*	The net has traffic for YOU. Stand by.
QNV*	Establish contact with on this frequency. If successful, move to . . . and send him traffic for . . .
QNW	How do I route messages for ?
QNX	You are excused from the net.* Request to be excused from the net.
QNY*	Shift to another frequency (or to . . . kc.) to clear traffic with
QNZ	Zero beat your signal with mine.

*For use only by Net Control Station

Notes on the Use of QN Signals

1. The QN signals listed above are special ARRL signals for use in amateur c.w. nets only. Other meanings that may be used in other services do not apply.
2. Some QN signals are for use by net control stations only; these are marked with an asterisk (*). Others have slightly different meanings when used by the NCS and net stations; in this case, the meaning when used by the NCS is marked with an asterisk (*).
3. Some QN signals have two meanings, the difference depending on how or by whom used. Examples: (a) QNC, when used as a preface to transmission of a message, carries its first meaning; when used by a station reporting into the net (e.g., W9NCS DE W9NET QNI QNC), it carries its second meaning. (b) QNI, when used by the NCS, is a request for stations to report in; when used by a net station, it means that this station is reporting in. (c) QNJ, when used alone, carries its first meaning; when followed by a call, it carries the second meaning.
4. QN signals are never followed by a question mark, even though the meaning may be interrogatory.
5. Do not use QN signals on phone nets. Say it with words.
6. Use QN signals in nets only. They are not for use in casual amateur conversation.
7. Make frequent use of standard international "Q" signals in traffic nets, for meanings not covered by QN signals. Examples: QRU, QRV, QSV, QTA, QTB, QTX, etc.

ARRL Communications Department

FEDERAL COMMUNICATIONS COMMISSION EXAMINATION POINTS

Examinations for commercial and amateur radio operator licenses are conducted at the following F.C.C. field offices on the days designated by the Engineer in Charge of each office. Specific dates should be obtained from the Engineer in Charge.

Dist. No.	Office Location
1	BOSTON, MASSACHUSETTS 02109 1600 Customhouse, India & State Streets
2	NEW YORK, NEW YORK 10014 748 Federal Building, 641 Washington Street
3	PHILADELPHIA, PENNSYLVANIA 19106 1005 U.S. Customhouse, 2nd & Chestnut Streets
4	BALTIMORE, MARYLAND 21202 415 U. S. Customhouse, Gay & Lombard Streets
5	NORFOLK, VIRGINIA 23510 405 Federal Building, Granby & York Streets
6	ATLANTA, GEORGIA 30303 2010 Atlanta Merchandise Mart, 240 Peachtree St, NE
6S	SAVANNAH, GEORGIA 31402 238 Post Office Building, York & Bull Streets
7	MIAMI, FLORIDA 33130 919 Federal Building, 51 S. W. First Avenue
7T	TAMPA, FLORIDA 33602 738 Federal Building, 500 Zack Street
8	NEW ORLEANS, LOUISIANA 70130 829 Federal Building South, 600 South Street
8M	MOBILE, ALABAMA 36602 439 U. S. Court House, 113 St. Joseph Street
9	HOUSTON, TEXAS 77002 5636 Federal Building, 515 Rusk Avenue
9B	BEAUMONT, TEXAS 77701 239 Federal Building, 300 Willow Street
10	DALLAS, TEXAS 75202 707 Thomas Building, 1314 Wood Street
11	LOS ANGELES, CALIFORNIA 90012 U. S. Courthouse, 312 N. Spring Street
11SD	SAN DIEGO, CALIFORNIA 92101 Fox Theatre Building, 1245 Seventh Avenue
11SP	SAN PEDRO, CALIFORNIA 90731 300 South Ferry Street
12	SAN FRANCISCO, CALIFORNIA 94111 323A Custom House, 555 Battery Street
13	PORTLAND, OREGON 97205 314 Multnomah Building, 319 S. W. Pine Street
14	SEATTLE, WASHINGTON 98104 8012 Federal Office Building, 909 First Avenue
15	DENVER, COLORADO 80202 504 New Customhouse, 19th bet. California & Stout St.
16	ST. PAUL, MINNESOTA 55102 691 Federal Building, 4th & Roberts Streets
17	KANSAS CITY, MISSOURI 64106 1703 Federal Building, 601 East 12th Street
18	CHICAGO, ILLINOIS 60604 1872 U. S. Courthouse, 219 S. Dearborn Street
19	DETROIT, MICHIGAN 48226 1029 Federal Building, Washington & LaFayette St.
20	BUFFALO, NEW YORK 14203 328 Federal Office Building, Ellicott & Swan Streets
21	HONOLULU, HAWAII 96808 502 Federal Building, 335 South King Street
22	SAN JUAN, PUERTO RICO 00903 322 U. S. Post Office & Courthouse, P.O. Box 2987
23	ANCHORAGE, ALASKA 99501 53 U. S. Post Office Building, 4th Av bet. F & G St.
24	WASHINGTON, D.C. 20554 Room 216, 1919 M Street, N.W.
	GETTYSBURG, PENNSYLVANIA 17325 P. O. Box 441

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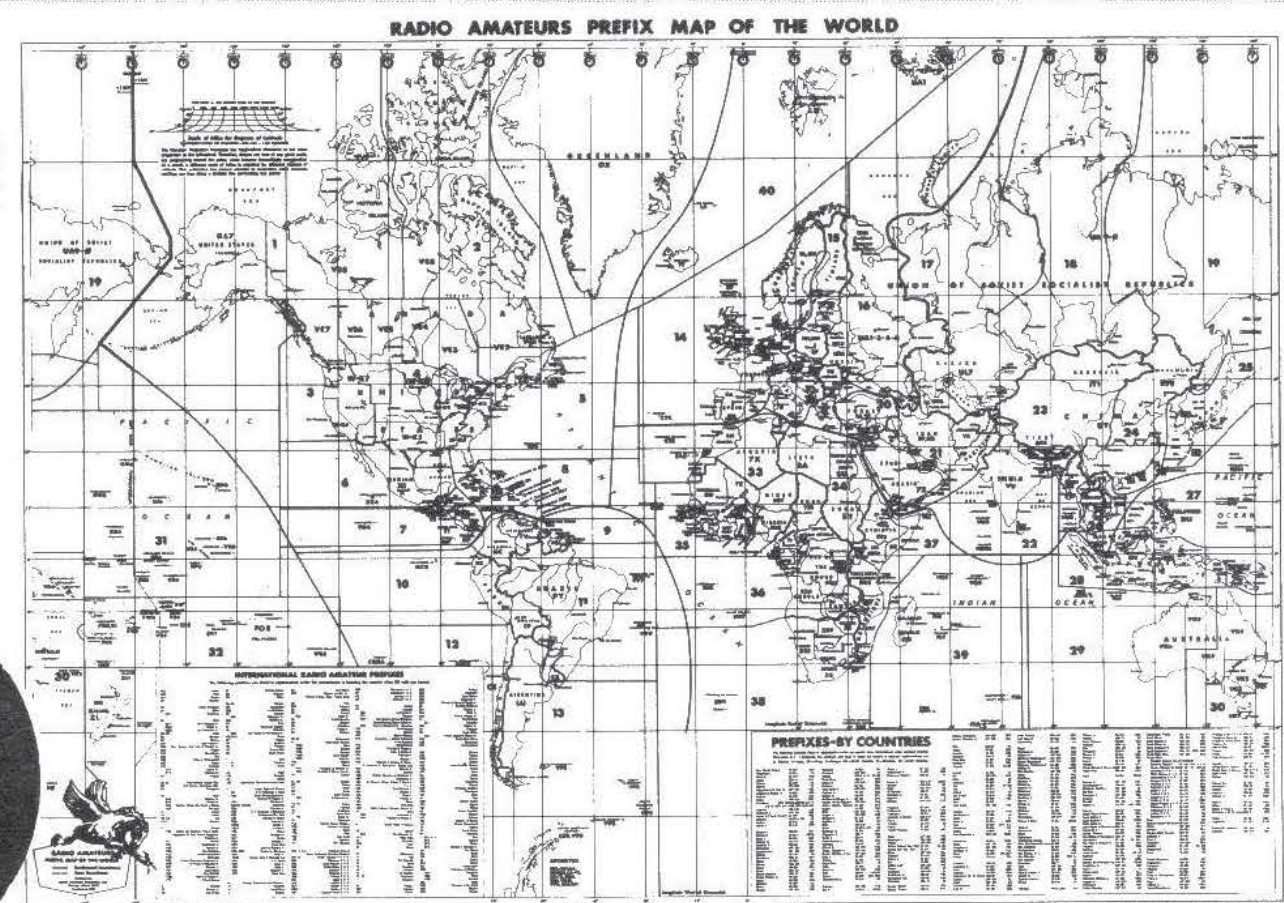
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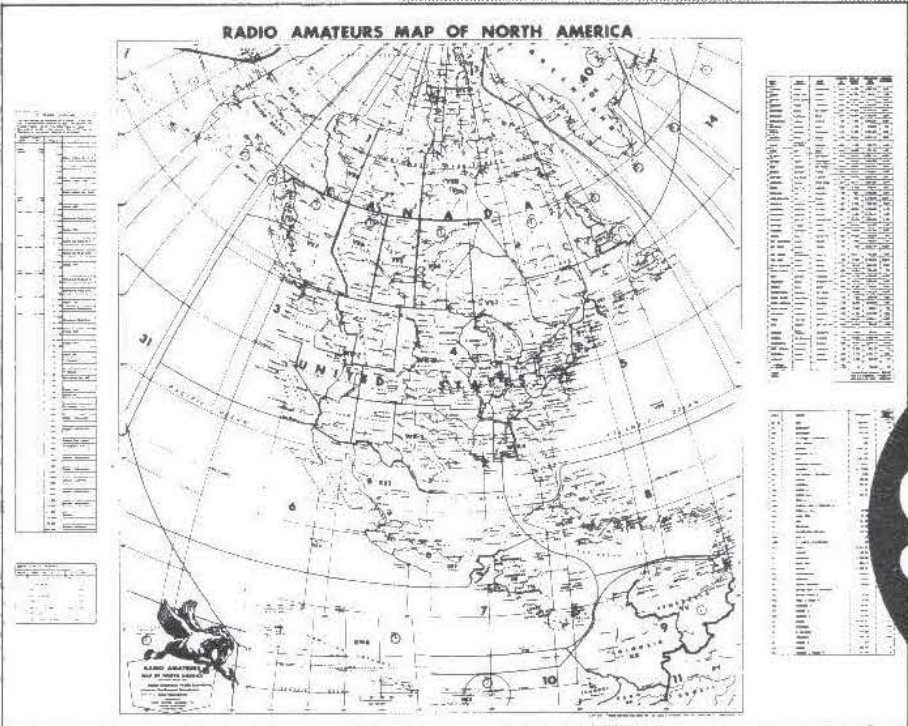
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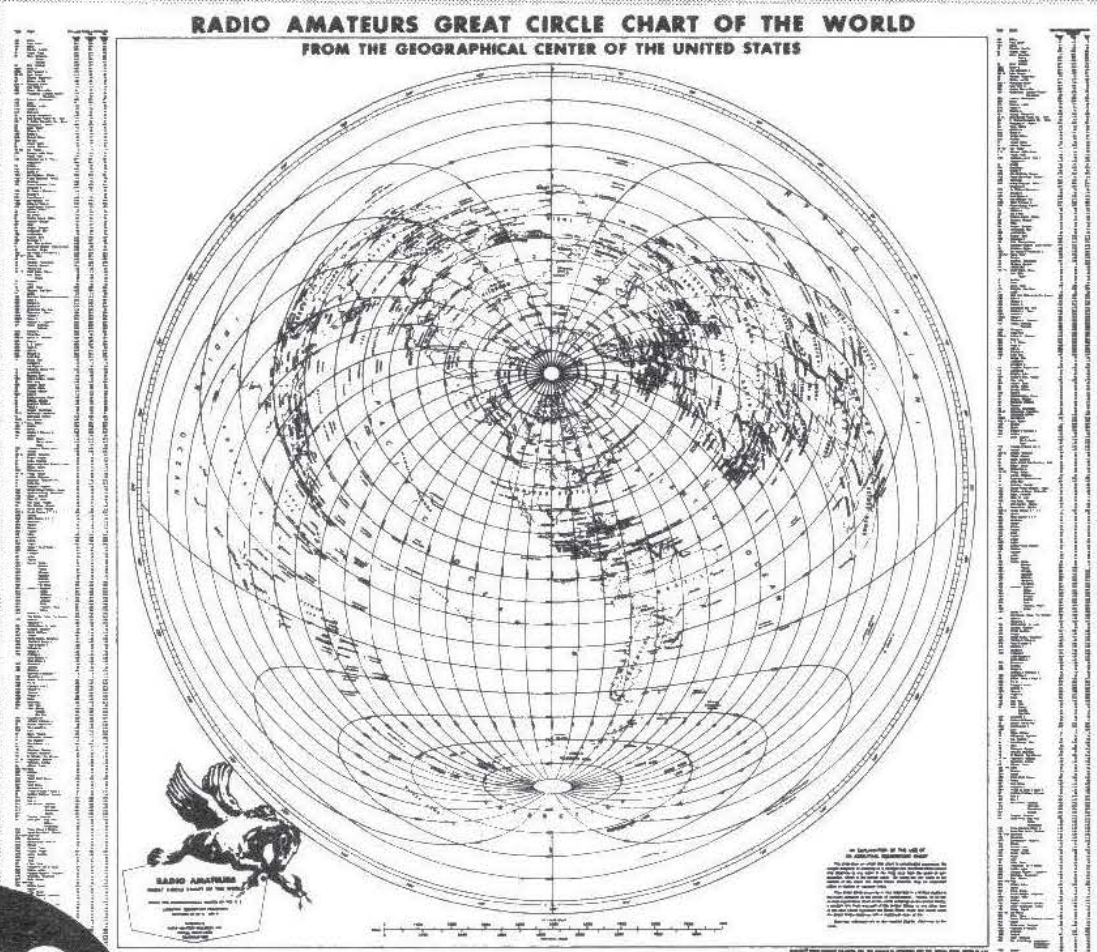


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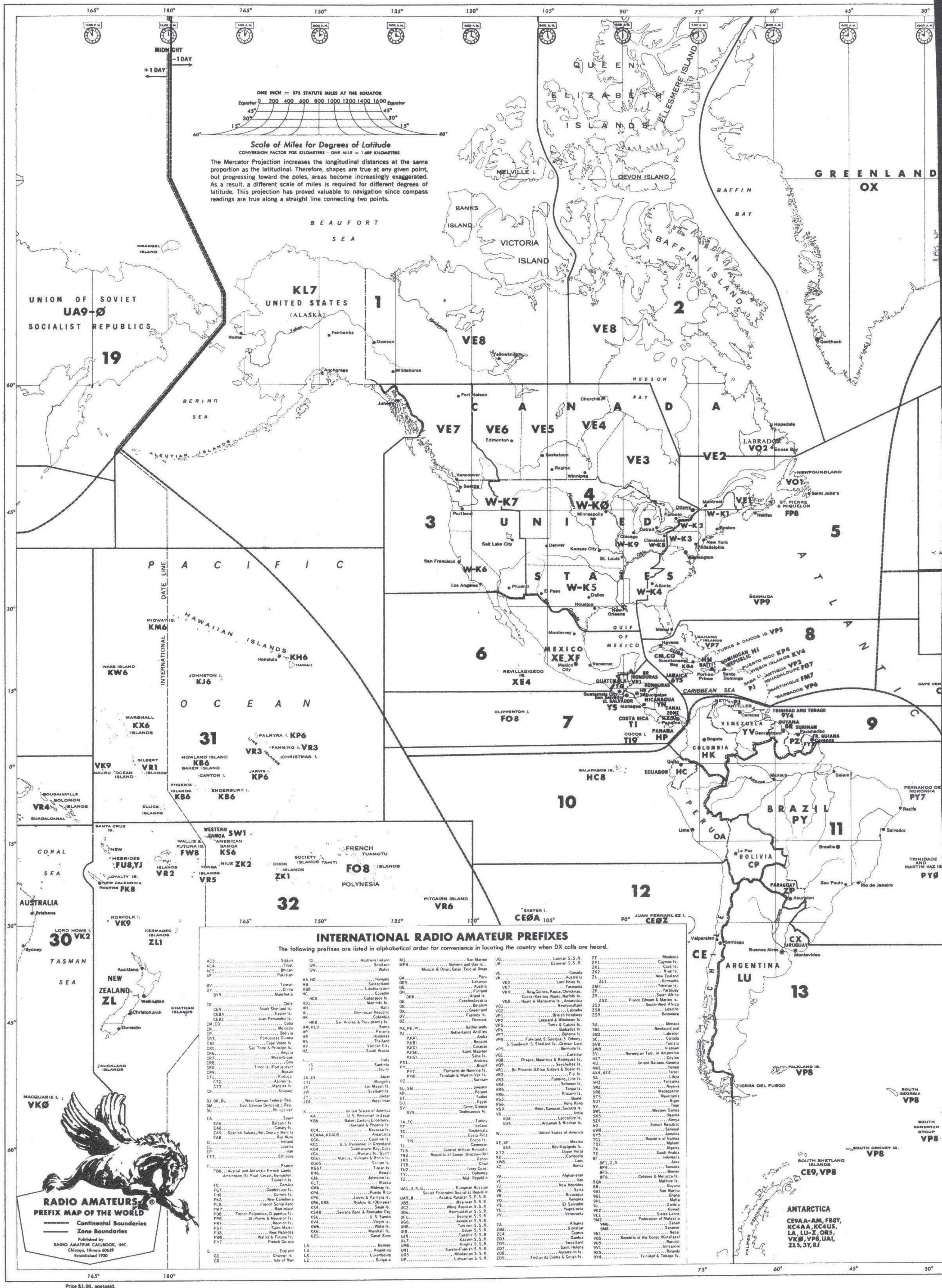
The standard time system is based on the theoretical division of the surface of the globe into 24 zones, each of 15° of longitude. The initial zone is the one which has as its central meridian the Greenwich Meridian and with the meridians $7^\circ 30'$ E. and $7^\circ 30'$ W. as its eastern and western limits. Time in this zone is called Greenwich Mean Time, or GMT. Places to the east of Greenwich have faster time than Greenwich, while places to the west have slower time. Not all countries follow the International Time Zone System, but some use the time of some principal city as a standard and others have no standard time.

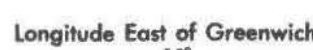
Another deviation from this theoretical system is that certain countries, for economic reasons, modify their legal time for part of the year, especially in summer, by advancing it an hour or another fraction of time. Where such deviations are maintained on a year-round basis, the time kept is considered to be standard time.

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* No definite standard time used.
** "Arabic Time", i.e. daily all watches are set to midnight at sundown.

RADIO AMATEURS PREFIX





The following countries listed in alphabetical order by country show international radio amateur prefixes. Characters in () designate the continent and zone in which the country is located. Abbreviations are as follows: A—Asia, AF—Africa, E—Europe, NA—North America, O—Oceania, SA—South America.

The following countries listed in alphabetical order by country show international radio amateur prefixes. Characters in () designate the continent and zone in which the country is located. Abbreviations are as follows: A—Asia, AF—Africa, E—Europe, NA—North America, O—Oceania, SA—South America.

Longitude West of Greenwich

INTERNATIONAL "Q" SIGNALS

Abbreviation	Question	Answer or Advice	Abbreviation	Question	Answer or Advice
QRA	What is the name of your station?	The name of my stations is . . .	QSX	Will you listen to . . . [call sign(s)] on . . . kc/s (or Mc/s)	I am listening to . . . [call sign(s)] on . . . kc/s (or Mc/s).
QRB	How far approximately are you from my station?	The approximate distance between our stations is . . . nautical miles (or kilometres)	QSY	Shall I change to transmission on another frequency?	Change to transmission on another frequency [or on . . . kc/s (or Mc/s)].
QRD	Where are you bound and where are you from?	I am bound for . . . from . . .	QSZ	Shall I send each word or group more than once?	Send each word or group twice (or . . . times).
QRG	Will you tell me my exact frequency or that of . . . ?	Your exact frequency (or that of . . . is . . . kc/s (or Mc/s).	QTA	Shall I cancel telegram number . . . as if it had not been sent?	Cancel telegram number . . . as if it had not been sent.
QRH	Does my frequency vary?	Your frequency varies.	QTB	Do you agree with my counting of words?	I do not agree with your counting of words; I will repeat the first letter or digit of each word or group.
QRI	How is the tone of my transmission?	The tone of your transmission is . . . (1. Good; 2. Variable; 3. Bad).	QTC	How many telegrams have you to send?	I have . . . telegrams for you (or for . . .).
QRK	What is the readability of my signals (or those of . . .)?	The readability of your signals (or those of . . .) is . . . (1. Unreadable; 2. Readable now and then; 3. Readable, but with difficulty; 4. Readable; 5. Perfectly readable).	QTE	What is my TRUE bearing from you? What is my TRUE bearing from . . . (call sign)? What is the TRUE bearing of . . . (call sign) from . . . (call sign)?	Your TRUE bearing from me is . . . degrees (at . . . hours) or Your TRUE bearing from . . . (call sign) was . . . degrees (at . . . hours) or The TRUE bearing of . . . (call sign) from . . . (call sign) was . . . degrees (at . . . hours).
QRL	Are you busy?	I am busy (or I am busy with . . .). Please do not interfere.	QTG	Will you send two dashes of ten seconds each followed by your call sign (repeated . . . times) [on . . . kc/s (or Mc/s)]?	I am going to send two dashes of ten seconds each followed by my call sign (repeated . . . times) [on . . . kc/s (or Mc/s)]
QRM	Are you being interfered with?	I am being interfered with.		Will you request . . . to send two dashes of ten seconds followed by his call sign (repeated . . . times) on . . . kc/s (or Mc/s)?	I have requested . . . to send two dashes of ten seconds followed by his call sign (repeated . . . times) on . . . kc/s (or Mc/s).
QRN	Are you troubled by static?	I am troubled by static.	QTH	What is your position in latitude and longitude (or according to any other indication)?	My position is . . . latitude . . . longitude (or according to any other indication).
QRO	Shall I increase power?	Increase power.	QTI	What is your TRUE track?	My TRUE track is . . . degrees.
QRP	Shall I decrease power?	Decrease power.	QTI	What is your speed?	My speed is . . . knots (or kilometres per hour).
QRQ	Shall I send faster?	Send faster (. . . words per minute).	QTL	What is your TRUE heading?	My TRUE heading is . . . degrees.
QRR	Are you ready for automatic operation?	I am ready for automatic operation. Send at . . . words per minute.	QTN	At what time did you depart from . . . (place)?	I departed from . . . (place) at . . . hours.
QRS	Shall I send more slowly?	Send more slowly (. . . words per minute).	QTO	Have you left dock (or port)? Are you airborne?	I have left dock (or port) or I am airborne.
QRT	Shall I stop sending?	Stop sending.	QTP	Are you going to enter dock (or port)? Are you going to alight (or land)?	I am going to enter dock (or port) or I am going to alight (or land).
QRU	Have you anything for me?	I have nothing for you.	QTT	Can you communicate with my station by means of the International Code of Signals?	I am going to communicate with your station by means of the International Code of Signals.
QRV	Are you ready?	I am ready.	QTR	What is the correct time?	The correct time is . . . hours.
QRW	Shall I inform . . . that you are calling him on . . . kc/s (or Mc/s).	Please inform . . . that I am calling him on . . . kc/s (or Mc/s).	QTS	Will you send your call sign for . . . minute(s) now (or at . . . hours) [on . . . kc/s (or Mc/s)] so that your frequency may be measured?	I will send my call sign for . . . minute(s) now (or at . . . hours) [on . . . kc/s (or Mc/s)] so that my frequency may be measured.
QRX	When will you call me again?	I will call you again at . . . hours [on . . . kc/s (or Mc/s)].	QTV	What are the hours during which your station is open?	My station is open from . . . to . . . hours.
QRY	What is my turn?	Your turn is Number . . . (Relates to communication.)	QTV	Shall I stand guard for you on the frequency of . . . kc/s (or Mc/s) (from . . . to . . . hours)?	Stand guard for me on the frequency of . . . kc/s (or Mc/s) (from . . . to . . . hours).
QRZ	Who is calling me?	You are being called by . . . [on . . . kc/s or Mc/s)].	QTX	Will you keep your station open for further communication with me until further notice (or until . . . hours)?	I will keep my station open for further communication with you until further notice (or until . . . hours).
QSA	What is the strength of my signals (or those of . . .)?	The strength of your signals (or those of . . .) is . . . (1. Scarcely perceptible; 2. Weak; 3. Fairly good; 4. Good; 5. Very good).	QUA	Have you news of . . . (call sign)?	Here is news of . . . (call sign).
QSB	Are my signals fading?	Your signals are fading.	QUB	Can you give me, in the following order, information concerning: visibility, height of clouds, direction and velocity of ground wind at . . . (place of observation)?	Here is the information requested . . .
QSD	Is my keying defective?	Your keying is defective.	QUC	What is the number (or other indication) of the last message you received from me [or from (call sign)]?	The number (or other indication) of the last message I received from you [or from . . . (call sign)] is . . .
QSG	Shall I send . . . telegrams at a time?	Send . . . telegrams at a time.	QUD	Have you received the urgency signal sent by . . . (call sign of mobile station)?	I have received the urgency signal sent by . . . (call sign of mobile station) at . . . hours.
QSH	What is the charge to be collected per word to . . . including your internal telegraph charge?	The charge to be collected per word to . . . including my internal telegraph charge is . . . francs.	QUF	Have you received the distress signal sent by . . . (call sign of mobile station)?	I have received the distress signal sent by . . . (call sign of mobile station) at . . . hours.
QSK	Can you hear me between your signals?	I can hear you between my signals.	QUG	Will you be forced to alight (or land)?	I am forced to alight (or land immediately). or I shall be forced to alight (or land) at . . . (position or place).
QSL	Can you acknowledge receipt?	I am acknowledging receipt.	QUH	Will you give me the present barometric pressure at sea level?	The present barometric pressure at sea level is . . . (units).
QSM	Shall I repeat the last telegram which I sent you, or some previous telegram?	Repeat the last telegram which you sent me [or telegram(s) number(s) . . .].			
QSN	Did you hear me [or . . . (call sign)] on . . . kc/s (or Mc/s)?	I did hear you [or . . . (call sign) on . . . kc/s (or Mc/s).			
QSO	Can you communicate with . . . direct or by relay?	I can communicate with . . . direct (or by relay through . . .).			
QSP	Will you relay to . . . free of charge?	I will relay to . . . free of charge.			
QSQ	Have you a doctor on board [or is . . . (name of person) on board]?	I have a doctor on board [or . . . name of person) is on board].			
QSU	Shall I send or reply on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .)?	Send or reply on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .).			
QSV	Shall I send a series of V's on this frequency [or . . . kc/s (or Mc/s)]?	Send a series of V's on this frequency [or . . . kc/s (or Mc/s)].			
QSW	Will you send on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .)?	I am going to send on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .).			

CENSUS OF AMATEUR RADIO LICENSES* in the U.S.A.
by classes, within states and call areas

Call Area	State	Novice	Tech- nician	Con- ditional	General	Advanced	Extra	Club	Military	State totals	YL's (Included in state totals)
#1	Conn.	171	766	823	1,859	804	196	82	9	4,710	146
	Maine	44	117	611	403	273	67	15	9	1,539	59
	Mass.	388	3,214	650	4,396	1,808	406	122	25	11,009	411
	N.H.	59	414	209	594	252	53	20	4	1,605	79
	R.I.	38	488	118	607	221	49	23	5	1,549	57
	Vermont	28	79	250	167	102	19	10	3	658	38
		<u>728</u>	<u>5,078</u>	<u>2,661</u>	<u>8,026</u>	<u>3,460</u>	<u>790</u>	<u>272</u>	<u>55</u>	<u>21,070</u>	<u>790</u>
#2	N.J.	555	3,532	426	5,399	2,331	518	159	18	12,938	315
	N.Y.	1,205	6,323	927	10,208	3,891	853	340	46	23,793	662
		<u>1,760</u>	<u>9,855</u>	<u>1,353</u>	<u>15,607</u>	<u>6,222</u>	<u>1,371</u>	<u>499</u>	<u>64</u>	<u>36,731</u>	<u>977</u>
#3	Del.	45	115	42	299	100	22	8	2	633	15
	Md.	269	901	327	2,308	1,090	264	67	27	5,253	129
	Pa.	791	3,949	919	6,422	2,288	502	209	31	15,111	421
	D.C.	26	92	35	269	146	34	22	8	632	13
		<u>1,131</u>	<u>5,057</u>	<u>1,323</u>	<u>9,298</u>	<u>3,624</u>	<u>822</u>	<u>306</u>	<u>68</u>	<u>21,629</u>	<u>578</u>
#4	Ala.	212	682	837	1,316	469	94	24	17	3,651	129
	Fla.	388	1,715	1,970	3,833	2,134	377	99	26	10,542	383
	Ga.	182	588	903	1,454	625	127	46	19	3,944	104
	Ky.	131	446	537	806	385	75	28	9	2,417	63
	N.C.	204	624	1,033	1,475	657	115	47	17	4,172	141
	S.C.	79	151	1,014	475	227	46	17	18	2,027	53
	Tenn.	241	1,110	671	1,494	662	133	42	6	4,359	126
	Va.	230	842	895	2,276	1,084	268	58	41	5,694	121
		<u>1,667</u>	<u>6,158</u>	<u>7,860</u>	<u>13,129</u>	<u>6,243</u>	<u>1,235</u>	<u>361</u>	<u>153</u>	<u>36,806</u>	<u>1,120</u>
#5	Ark.	137	290	435	531	291	45	25	8	1,762	80
	La.	186	378	740	1,140	511	100	35	18	3,108	79
	Miss.	72	136	528	522	234	33	7	7	1,539	36
	N.M.	85	147	620	402	313	72	15	15	1,669	73
	Okla.	181	687	549	1,086	611	98	36	40	3,288	127
	Texas	675	2,506	3,288	5,196	2,605	456	148	66	14,940	625
		<u>1,336</u>	<u>4,144</u>	<u>6,160</u>	<u>8,877</u>	<u>4,565</u>	<u>804</u>	<u>266</u>	<u>154</u>	<u>26,306</u>	<u>1,020</u>
#6	Calif.	1,905	8,457	3,970	15,466	8,216	1,379	478	128	39,999	1,319
#7	Ariz.	220	651	622	1,117	617	103	36	36	3,402	147
	Idaho	76	42	510	167	167	25	10	2	999	49
	Mont.	88	53	666	156	144	44	15	8	1,174	64
	Nev.	28	91	411	167	131	19	10	9	866	44
	Oreg.	314	592	895	1,568	781	117	53	20	4,340	208
	Utah	164	247	194	503	207	37	14	11	1,377	38
	Wash.	403	1,066	1,350	2,685	1,249	213	70	27	7,063	325
	Wyo.	45	36	246	103	62	14	12	3	521	26
		<u>1,338</u>	<u>2,778</u>	<u>4,894</u>	<u>6,466</u>	<u>3,358</u>	<u>572</u>	<u>220</u>	<u>116</u>	<u>19,742</u>	<u>901</u>
#8	Mich.	651	2,883	1,104	4,271	1,579	234	129	21	10,872	353
	Ohio	808	5,485	690	6,057	2,326	350	200	24	15,940	537
	W. Va.	125	407	195	736	220	46	18	5	1,752	42
		<u>1,584</u>	<u>8,775</u>	<u>1,989</u>	<u>11,064</u>	<u>4,125</u>	<u>630</u>	<u>347</u>	<u>50</u>	<u>28,564</u>	<u>932</u>
#9	Ill.	853	3,455	1,862	5,956	2,383	377	215	25	15,126	485
	Ind.	396	2,052	573	2,422	923	158	113	9	6,646	258
	Wisc.	276	817	962	1,641	814	125	78	16	4,729	108
		<u>1,525</u>	<u>6,324</u>	<u>3,397</u>	<u>10,019</u>	<u>4,120</u>	<u>660</u>	<u>406</u>	<u>50</u>	<u>26,501</u>	<u>851</u>
#10	Colo.	201	439	678	1,235	638	115	45	16	3,367	126
	Iowa	306	594	619	1,700	720	117	53	9	4,118	132
	Kas.	240	364	1,001	1,145	546	117	38	29	3,480	143
	Minn.	330	525	899	1,784	806	167	62	13	4,586	122
	Mo.	306	1,056	920	2,107	960	178	74	11	5,612	202
	Nebr.	137	288	509	741	347	50	31	7	2,110	83
	N.D.	30	13	458	66	96	20	9	7	699	27
	S.D.	67	43	258	246	134	20	13	3	784	40
		<u>1,617</u>	<u>3,322</u>	<u>5,342</u>	<u>9,024</u>	<u>4,247</u>	<u>784</u>	<u>325</u>	<u>95</u>	<u>24,756</u>	<u>875</u>
Grand total, 48 states and D.C. only		<u>14,591</u>	<u>59,948</u>	<u>38,949</u>	<u>106,976</u>	<u>48,180</u>	<u>9,047</u>	<u>3,480</u>	<u>933</u>	<u>282,104</u>	<u>9,363</u>

* From the Summer 1969 Radio Amateur Callbook Magazine.

NEW YORK, N.Y.

The table below shows the great circle bearing in degrees from the point indicated above to countries throughout the world having licensed radio amateurs. Where cities are shown the bearing to the nearest degree is given. These bearings were compiled from information supplied by the U. S. Coast and Geodetic Survey.

PREFIX	COUNTRY	BEARING	PREFIX	COUNTRY	BEARING	PREFIX	COUNTRY	BEARING
A2C	BOTSWANA, MAFEKING	103	KS4	SWAN IS.	203	VQ8	CHAGOS IS.	50
AC3	SIKKIM	17	KS6	U S SAMOA	264		MAURITIUS & RODRIGUEZ IS.	78
AC4	TIBET, LHASA	14	KV4	VIRGIN IS.	151	VQ9	SEYCHELLES IS.	65
AC5	BHUTAN	14	KW6	WAKE IS.	304	VR1	GILBERT, ELLICE & OCEAN IS.	287
AP	PAKISTAN, KARACHI	36	KX6	MARSHALL IS.	294	VR2	FIJI IS.	267
BV	TAIWAN, TAIPEI	345	KZ5	CANAL ZONE	190	VR3	FANNING & LINE IS.	270
BY	CHINA, CHUNGKING	359	LA	NORWAY, OSLO	39	VR4	SOLOMON IS.	290
	PEKING	352		SVALBARD IS.	15	VR5	TONGA IS.	261
	SHANGHAI	346		JAN MAYEN IS.	25	VR6	PITCAIRN IS.	229
CE	CHILE, SANTIAGO	177	LU	ARGENTINA, BUENOS AIRES	167	VS5	BRUNEI	348
CE0A	EASTER IS.	212	LX	LUXEMBOURG	51	VS6	HONG KONG	351
CE0Z	JUAN FERNANDEZ IS.	184	LZ	BULGARIA, SOFIA	52	VU	INDIA, BOMBAY	34
CM,CO	CUBA, HAVANA	204	M1	SAN MARINO	55		CALCUTTA	18
CN	MOROCCO, CASABLANCA	75	MP4	MUSCAT & OMAN, MASQAT	48		NEW DELHI	26
CP	BOLIVIA, LA PAZ	173	OA	PERU, LIMA	184	VU4	LACCADIVE IS.	38
CR3	PORTUGUESE GUINEA	101	OD5	LEBANON, BEIRUT	52	VU5	ANDAMAN & NICOBAR IS.	16
CR4	CAPE VERDE IS.	105	OE	AUSTRIA, VIENNA	49	XE,XF	MEXICO, MEXICO CITY	233
CR6	ANGOLA, NOVA LISBOA	100	OH	FINLAND, HELSINKI	35	XE4	REVILLAGIGEDO IS.	247
CR7	MOZAMBIQUE, LOURENCO MARQUES	101	OH0	ALAND IS.	36	XW8	LAOS	4
	MOZAMBIQUE	85	OK,OL	CZECHOSLOVAKIA, PRAGUE	48	XZ	BURMA, RANGOON	11
CR8	GOA	35	ON	BELGIUM, BRUSSELS	51	YA	AFGHANISTAN, KANDAHAR	34
CR8	TIMOR IS.	327	OX	GREENLAND, GODTHAAB	22	YI	IRAQ, BAGHDAD	47
CR9	MACAO	352	OY	FAEROES IS.	38	YJ	NEW HEBRIDES, VILLA	276
CT1	PORTUGAL, LISBON	70	OZ	DENMARK, COPENHAGEN	43	YK	SYRIA	50
CT2	AZORES IS.	78	PA,PE,PI	NETHERLANDS, AMSTERDAM	49	YN	NICARAGUA, MANAGUA	204
CT3	MADEIRA IS.	81	PJ	NETHERLANDS ANTILLES	170	YO	RUMANIA, BUCHAREST	49
CX	URUGUAY, MONTEVIDEO	165	PJ2M	SINT MAARTEN	154	YS	EL SALVADOR, SAN SALVADOR	210
DC,DJ,DK	WEST GERMAN FEDERAL REP, BONN	50	PX1	ANDORRA	62	YU	YUGOSLAVIA, BELGRADE	51
DM	E. GERMAN DEMOCRATIC REP, BERLIN	46	PY	BRAZIL, BRASILIA	151	YV	VENEZUELA, CARACAS	166
DU	PHILIPPINES, MANILA	343		RIO DE JANEIRO	150	ZA	ALBANIA, TIRANA	55
EA	SPAIN, MADRID	66		NATAL	132	ZB2	GIBRALTAR	71
EA6	BALEARIC IS.	64	PY0	TRINDADE & MARTIM VAZ IS.	136	ZC4	CYPRUS	53
EA8	CANARY IS.	86	PZ	SURINAM	149	ZD3	GAMBIA	102
EA9	SPANISH SAHARA	72	SK,SL,SM	SWEDEN, STOCKHOLM	38	ZD5	SWAZILAND	102
EA0	RIO MUNI	91	SP	POLAND, WARSAW	44	ZD7	SAINT HELENA	116
EI	IRELAND, DUBLIN	50	ST	SUDAN, KHARTOUM	67	ZD8	ASCENSION IS.	116
EL,5L	LIBERIA, MONROVIA	103	SU	EGYPT, CAIRO	58	ZD9	TRISTAN DA CUNHA & GOUGH IS.	135
EP	IRAN, TEHRAN	42	SV	GREECE, ATHENS	56	ZE	SOUTHERN RHODESIA, SALISBURY	94
ET3	ETHIOPIA, ADDIS ABABA	68	SV5	DODECANESE IS.	54	ZK1	COOK IS.	252
	ASMARA	63	TA,TC	TURKEY, ANKARA	49	ZK2	NIUE IS.	258
F	FRANCE, PARIS	54	TF	ICELAND, REYKJAVIK	34	ZL1	NEW ZEALAND, AUCKLAND	251
F88	AMSTERDAM AND ST. PAUL IS.	92	TG	GUATEMALA, GUATEMALA CITY	214	ZL2	WELLINGTON	245
	KERGUELEN IS.	121	TI	COSTA RICA	199	ZL3	CHRISTCHURCH	243
FC	CORSICA	58	TJ	CAMEROON, YAOUNDE	90	ZL4	DUNEDIN	241
FG7	GUADELOUPE	152	TL8	CENTRAL AFRICAN REP, BANGUI	85	ZP	PARAGUAY, ASUNCION	164
FH8	COMORO IS.	81	TN8	REPUBLIC OF CONGO, BRAZZAVILLE	82	ZS	SOUTH AFRICA, CAPE TOWN	116
FK8	NEW CALEDONIA, NOUMEA	271	TR8	GABON, LIBREVILLE	94		DURBAN	106
FL8	FRENCH SOMALILAND, DJIBOUTI	63	TT8	CHAD, FT. LAMY	81		JOHANNESBURG	104
FM7	MARTINIQUE	153	TU2	IVORY COAST, ABIDJAN	99	ZS2	PRINCE EDWARD & MARION IS.	121
FO8	FRENCH POLYNESIA, TAHITI	248	TZ	MALI REPUBLIC, BAMAKO	96	ZS3	SOUTH-WEST AFRICA, WINDHOEK	107
	CLIPPERTON IS.	236	UA1	SOVIET UNION, MOSCOW	34	3A	MONACO	57
FP8	ST. PIERRE & MIQUELON IS.	55	UA9,0	ASIATIC RUSSIAN S.F.S.R.	359	3V8	TUNISIA, TUNIS	63
FR7	REUNION IS.	81	UB5	UKRAINIAN S.S.R.	43	3W8	VIETNAM, SAIGON	359
FS7	SAINT MARTIN IS.	154	UC2	WHITE RUSSIAN S.S.R.	39	4S7	CEYLON, COLOMBO	32
FU8	NEW HEBRIDES, VILA	276	UD6	AZERBAIDZHAN S.S.R.	42	4W1	YEMEN	60
FW8	WALLIS & FUTUNA IS.	268	UF6	GEORGIAN S.S.R.	41	4X4,4Z4	ISRAEL	54
FY7	FRENCH GUIANA, CAYENNE	146	UG6	ARMENIAN S.S.R.	43	5A	LIBYA, TRIPOLI	65
G	ENGLAND, LONDON	51	UH8	TURKMEN S.S.R.	33	5H3	TANZANIA, DAR ES SALAAM	80
GC	CHANNEL IS.	53	UI8	UZBEK S.S.R.	29	5N2	NIGERIA, LAGOS	93
GD	ISLE OF MAN	48	UJ8	TADZHIK S.S.R.	28	5R8	MALAGASY REPUBLIC, TANANARIVE	84
GI	NORTHERN IRELAND, BELFAST	49	UL7	KAZAKH S.S.R.	22	5T5	MAURITANIA, NOUAKCHOTT	97
GM	SCOTLAND, GLASGOW	46	UM8	KIRGHIZ S.S.R.	21	5U7	NIGER, NIAMEY	89
GW	WALES	50	UN1	KARELO-FINNISH S.S.R.	27	5V	TOGO	93
HA,HG	HUNGARY, BUDAPEST	49	UO5	MOLDAVIAN S.S.R.	46	5W1	WESTERN SAMOA	265
HB	SWITZERLAND, BERN	54	UP	LITHUANIAN S.S.R.	40	5X5	UGANDA	83
HB0	LIECHTENSTEIN	54	UQ	LATVIAN S.S.R.	38	5Z4	KENYA, NAIROBI	77
HC	ECUADOR, QUITO	187	UR	ESTONIAN S.S.R.	36	60	SOMALI REPUBLIC, MUGADISHU	68
HC8	GALAPAGOS IS.	205	VE1	CANADA, HALIFAX	61	6W8	SENEGAL, DAKAR	101
HH	HAITI, PORT-AU-PRINCE	175	VE2	MONTREAL	4	6Y5	JAMAICA	187
HI	DOMINICAN REP, SANTO DOMINGO	170	VE3	TORONTO	305	7G1	REPUBLIC OF GUINEA, CONAKRY	103
HK	COLOMBIA, BOGOTA	180	VE4	WINNIPEG	307	70	SOUTH YEMEN, ADEN	61
HK0	SAN ANDRES & PROVIDENCIA IS.	195	VE5	SASKATOON	308	7P8	LESOTHO	107
HM,HL9	KOREA, SEOUL	343	VE6	EDMONTON	311	7Q7	MALAWI, ZOMBA	87
HP	PANAMA	190	VE7	VANCOUVER	302	7X	ALGERIA, ALGIERS	67
HR	HONDURAS, TEGUCIGALPA	207	VE8	FORT NELSON	318	7Z,HZ	SAUDI ARABIA, MECCA	55
HS	THAILAND, BANGKOK	6	VK1	AUSTRALIA, CANBERRA	265	8F1,2,3	JAVA, BATAVIA	358
HV	VATICAN CITY	57	VK2	SYDNEY	266	8F4	SUMATRA	5
I	ITALY, ROME	57	VK3	MELBOURNE	262	8F5	BURNEO	348
	TRIESTE	53	VK4	BRISBANE	274	8F6	CELEBES IS.	336
IS	SARDINIA	60	VK5	ADELAIDE	272	8P6	BARBADOS	149
IT	SICILY	61	VK6	PERTH	315	8R	GUYANA, GEORGETOWN	152
JA,JH	JAPAN, TOKYO	333	VK7	TASMANIA, HOBART	252	9G1	GHANA, ACCRA	96
JT1	MONGOLIA, ULAN BATOR	359	VK8	DARWIN	315	9H1	MALTA	61
JY	JORDAN	54	VK9	NORFOLK IS.	263	9I,9J	ZAMBIA, LUSAKA	94
JZ0	WEST IRIAN	313		NEW GUINEA, PAPUA, PORT MORESBY	299	9K2	KUWAIT	48
KB6	BAKER IS.	278	VK0	HEARD IS.	130	9L1	SIERRA LEONE, FREETOWN	103
KC4	NAVASSA IS.	183		MACQUARIE IS.	230	9M2	FEDERATION OF MALAYSIA	7
KC6	CAROLINE IS.	312	VO1	NEWFOUNDLAND, ST JOHNS	60	9M6	SABAH, NORTH BORNEO	345
KG4	GUANTANAMO BAY, CUBA	181	VO2	LABRADOR, HOPEDALE	27	9M8	SARAWAK	345
KG6	MARIANAS IS, GUAM	318	VP1	BRITISH HONDURAS	212	9N1	NEPAL, KATMANDU	19
KG6I	VOLCANO IS.	327	VP2	ANTIGUA	151	9Q5	REP. OF THE CONGO, KINSHASA	94
KG6S	SAIPAN IS.	318	VP5	TURKS & CAICOS IS.	172		LUBUMBASHI	91
KH6	HAWAII, HONOLULU	283	VP7	BAHAMA IS.	186		KISANGANI	83
KL7	ALASKA, ANCHORAGE	321	VP8	FAKLAND IS.	171	9U5	BURUNDI	83
	FAIRBANKS	327		SOUTH GEORGIA IS.	159	9V1	SINGAPORE	3
KM6	MIDWAY IS.	301		SOUTH ORKNEY IS.	166	9X5	RWANDA	83
KP4	PUERTO RICO	160	VP9	BERMUDA IS.	134	9Y4	TRINIDAD & TOBAGO IS.	155
KR6,8	RYUKYU IS, OKINAWA	340	VQ1	ZANZIBAR	79			

World Wide QSL Bureaus

AP	Pakistan Amateur Radio Society, QSL Bureau, P O Box 65, Lahore, West Pakistan, Asia	KG4	Base Amateur Radio Office, Box 12, FPO New York 09593	VK9	QSL Bureau, c/o P O, Port Moresby, Papua, Australia
AP	Tiger Amateur Radio Club, Dacca Signals, Dacca 6, East Pakistan, Asia	KG6	Mariana Islands, except Guam, send cards direct	V01	Ernest Ash, V01AA, P O Box 6, St. Johns, Newfoundland, Canada
CE	Radio Club of Chile, P O Box 13630, Correo 15, Santiago, Chile, South America	KG6	Guam only, via P O Box 445, Agana, Guam, Mariana Is.	V02	Goose Bay ARC, P O Box 232, Goose Bay, Labrador, Canada
CM-CO	Federacion de Radioaficionados de Cuba, P O Box 6996, Havana, Cuba	KH6	John H Oka, KH6DQ, P O Box 101, Aiea, Oahu, Hawaii 96701	VP2	Antigua - via Gerald Price, VP2AC, P O Box 114, St. Johns, Antigua, Leeward Is.
CN	AAEM, P O Box 299, Rabat, Morocco, Africa	KL7	Mary Olendorff, KL7BJD, Star Rte C, Wasilla, Alaska	VP2	Dominica - Rev. William B Surbrook, VP2DA, P O Box 64, Roseau, Dominica, Windward Is.
CN	U S Navy in Morocco, H L "Tommy" Hall, General Del'y, U S Naval Training Cmd, FPO New York 09544, USA	KM6	KM6BI, Box 14, FPO San Francisco 96643, USA	VP2	Grenada - Alister Hughes, VP2GE, Springs, St. Georges, Grenada, Windward Is.
CN9	Amateur Radio Club Zona Norte, P O Box 124, Tetuan, Morocco, Africa, or via URE or AAEM	KP4	Alicia G Rodriguez, KP4CL, P O Box 1061, San Juan, Puerto Rico	VP2	St. Lucia - via Timothy A James, VP2LT, P O Box 322, Castries, St. Lucia, Windward Is.
CP	Radio Club Boliviano, P O Box 2111, La Paz, Bolivia, South America	KR6	Novice cards only - the NNQB District QSL Manager, KP4QA, Jorge Blanch, Box 2573, San Juan, Puerto Rico	VP2	St. Vincent - via QSL Bureau, P O Box 142, St. Vincent, Windward Is.
CR4	Radio Club de Cabo Verde, CR4AA, Praia, Sao Tiago, Cape Verde Islands, Africa	KR8	QSL Bureau, OARC, APO San Francisco 96331, USA	VP7	Bahamas Amateur Radio Society, P O Box 6004, Nassau, Bahama Is.
CR6	LARA, P O Box 484, Luanda, Angola, Africa	KS4	QSL Bureau, OARC, P O Box 37, Kadena, Okinawa	VP8	Falkland Is. & South Georgia - direct or the CX QSL Bureau, P O Box 37, Montevideo, Uruguay, South America
CR7	LREM, Liga dos Radio Emissores de Mocambique, P O Box 812, Lourenco Marques, Mozambique, Africa	KV4	Swan Island, West Indies, via Tampa, Florida, USA	VP9	All other VP8 bases via - RSGB, England
CR9	Hong Kong Amateur Radio Transmitting Society, P O Box 541, Hong Kong, Asia	KW6	Graciano Belardo, KV4CF, P O Box 572, Christiansted, St. Croix 00820, Virgin Is, West Indies	VQ1	Radio Society of Bermuda, P O Box 275, Hamilton, Bermuda
CT1-2-3	REP, Rua D. Pedro V, 7-4, Lisbon, Portugal, Europe	KX6	USCG Loran Station, KW6CGA, P O Box 7, Wake Island, Central Pacific Ocean	VQ8	The RSEA QSL Bureau, P O Box 2387, Dar-Es-Salaam, Tanzania, East Africa
CX	Radio Club of Uruguay, P O Box 37, Montevideo, Uruguay, South America	KX6	Kwajalein Amateur Radio Club, KX6BU, P O Box 444, APO San Francisco 96555, USA	VR2	Paul Caboche, VQ8AD, P O Box 467, Port Louis, Mauritius, Africa
DC-DJ-DK-DL	DARC QSL Bureau, P O Box 86 03 20, D8 Munich 86, West German Federal Republic, Europe	KX6	Eniwetok Amateur Radio Club, Air Force Western Test Range, APO San Francisco 96333 USA	VS5	The QSL Bureau, P O Box 184, Suva, Fiji Islands
DL2-5	Via C J Thomas, GW3PSM, 59 Maendy Way, West Pontnewydd, CWMBRAN, Monmouthshire NP4 1HW, Wales, Europe	KZ5	Via KZ5GS, Gloria M Spears, P O Box 407, Balboa, Canal Zone, Central America	VS6	MARTS, P O Box 777, Singapore, Asia
DL4-5	Via DL4-5 QSL Bureau, c/o MARS Radio Station, HQ5 93rd Signal Bn, APO New York 09175, USA	LA	República de San Marino, Europe	VS9	Hong Kong Amateur Radio Transmitting Society, P O Box 541, Hong Kong, Asia
DM	DM QSL Bureau, P O Box 30, Berlin 55, East German Democratic Republic, Europe	LU	Geom Mario Graziani, M1B, via Della Tana 226, Republic of San Marino, Europe	VU	Via RSGB, 35 Doughty St, London, WC 1, England
DU	PARA QSL Bureau, P O Box 4083, Manila, Philippines	LX	Ian Cable, MP4BBW, Box 425, Awali, Bahrain Is, Asia	Y0	Amateur Radio Society of India, P O Box 534, New Delhi 1, India, Asia
EA	URE, Union of Radioaficionados Espanoles, P O Box 220, Madrid, Spain, Europe	OA	RCP, Radio Club of Peru, Box 538, Lima, Peru, S.A.	XE-XF	Via LMRE, P O Box 907, Mexico 1, DF, Mexico, N.A.
EI	IRTS QSL Bureau, 24 Wicklow St, Dublin 20124, Ireland	OD5	RAL QSL Bureau, Box 1217, Beirut, Lebanon, Asia	XW8	Houmphanh Saignasith, XW8AL, Statistics Dept, P O Box 46, Vientiane, Laos, Asia
EL	Cards for EL1 & 2 only - G Marcus Kelly, c/o Liberian Govt. Radio Stn, Monrovia, Liberia, Africa	OE	OE, VSV QSL Bureau, P O Box 999, Vienna 1/9, Austria, Europe	XZ	BARTS, P O Box 800, Rangoon, Burma, Asia
EP	Amateur Radio Society of Iran, ARMISH/MAAG, APO New York 09205, USA	OH	SRAL QSL Bureau, P O Box 10306, Helsinki 10, Finland, Europe	YK	QSL Bureau, P O Box 35, Damascus, Syria, Asia
ET3	Telecommunications Amateur Radio Club, P O Box 1047, Addis Ababa, Ethiopia, Africa	OK-OL	Central Radio Club, P O Box 69, Praha 1, Czechoslovakia	YN	Via Mike Murciano, YN1MO/W4, P O Box 902, Coral Gables, Florida 33134 USA
F	REF QSL Service, P O Box 70, Paris 12, France, Europe	ON	UBRC, P O Box 224, Brussels 1, Belgium	Y0	The Central Radio Club, P O Box 1395, Bucuresti 5, Romania
FB8	QSL Manager, 5R8BC, P O Box 587, Tananarive, Madagascar, Africa	OX-0Z	EDR QSL Bureau, Ingstrup, 9480 Lokken, Denmark, Europe	Y0	Radio Club Regional, P O Box 100, Timisoara, Romania, Europe
FG7	Radio Club Guadeloupe, P O Box 387, Pointe-A-Pitre, Guadeloupe, West Indies	OX4	OX4FA-OX4HZ via MARS Director, XP1AB, 2004 Comm Sq, APO New York 09121 USA	Y5	Oscar R Orellana, Y510, P O Box 329, San Salvador, El Salvador, Central America
FH8	QSL Manager, 5R8BC, P O Box 587, Tananarive, Madagascar, Africa	OX5	OX5AA-OX5EZ via MARS Director, XP1AA, 1983 Comm Sq, APO New York 09023 USA	YU	Members only - CRAS, P O Box 517, San Salvador, El Salvador, Central America
FK8	QSL Bureau, P O Box 637, Noumea, New Caledonia	OY	QSL Bureau, OY3B, Sofus Rubeksen, U Svartifossi, DK-3800, Torshavn, Faeroes Island, Europe	YV	SRJ, P O Box 48, Belgrade, Yugoslavia, Europe
FL8	REF QSL Service, P O Box 70, Paris 12, France, Europe	PA0	Members & Non-members - VERON, P O Box 400, Rotterdam, Netherlands, Europe	YV	RCV, Radio Club Venezolano, P O Box 2285, Caracas, Venezuela, South America
FM7	REF QSL Service, P O Box 70, Paris 12, France, Europe	PJ	Also via - VRZA, P O Box 190, Groningen, Netherlands	YV	Via Association of Radio Amateurs of Venezuela, P O Box 3636, Caracas, Venezuela, South America
F08	Radio Club Oceanien, P O Box 374, Papeete, Tahiti	PJ	VERONA QSL Bureau, P O Box 383, Willemstad, Curacao, Netherlands Antilles, S.A.	ZB2	Via RAF Amateur Radio Club, Royal Air Force, Gibraltar, Europe
FP8	Radio Club S P M, P O Box 347, St. Pierre & Miquelon Is. or R E F QSL Bureau, P O Box 70, Paris 12, France	PY1	Cards for Aruba - Aruba Amateur Radio Club, Box 273, San Nicolas, Aruba, Netherlands Antilles, S.A.	ZC4	Cyprus Amateur Radio Society, P O Box 216, Famagusta, Cyprus, or via G2MI
FY7	R E F QSL Service, P O Box 70, Paris 12, France	PY2	LABRE, Box 2353, Rio de Janeiro, Brazil, S.A.	ZD7	Via P O Jamestown, St. Helena, Africa
G	RSGB, Radio Society of Great Britain, c/o Arthur Milne, G2MI, 29 Kechill Gdns, Hayes, Bromley, Kent, England	PY3	LABRE, Box 2180, Porto Alegre, RS, Brazil, S.A.	ZD8	Ascension Amateur Radio League, ZD8AR, P O Box 4187, Patrick AFB, Florida, USA
GC	RSGB	PY4	LABRE, R. Curitiba 656, Conjunto 25, Belo Horizonte, MG, Brazil	ZD9	SARL, P O Box 3037, Capetown, South Africa
GD	RSGB	PY5	LABRE, Box 1455, Curitiba, PR, Brazil, S.A.	ZE	RSR QSL Manager, P O Box 2377, Salisbury, Rhodesia
GI	R R Parsons, GI3HXV, 45 Erinvale Av, Finaghy, Belfast 10, Northern Ireland, Europe	PY6	LABRE, Av Cons. Almeida Couto 25, Salvador, BA, Brazil, S.A.	ZF1	Cards may be sent direct
GM	RSGB	PY7	LABRE, Box 1043, Recife, PE, Brazil, S.A.	ZK1	QSL Bureau, Radio Station Rarotonga, Rarotonga, Cook Is.
GW	RSGB	PY7	Fernando de Noronha, via PY7AMP, Av Agamenon Magalhaes 300, Recife, Pernambuco, Brazil	ZL	NZART, P O Box 489, Wellington, New Zealand
HA-HG	HSRL, P O Box 214, Budapest 5, Hungary	PY8	LABRE, P O Box 71, Belem, Para, Brazil, S.A.	ZP	Radio Club Paraguayo, Casilla de Correo 512, Asuncion, Paraguay, South America
HB	USKA, HB9NL, Sonnenrain 188, 6233 Bueron, Lucerne, Switzerland, Europe	PY9	LABRE, Box 2, Cuiaba, MT, Brazil, S.A.	ZS	For members only - SARL, P O Box 3037, Capetown, Cape Province, South Africa
HB0	USKA, HB9NL, Sonnenrain 188, 6233 Bueron, Lucerne, Switzerland, Europe	PY0	Direct or via LABRE, P O Box 2353, Rio de Janeiro, GB, Brazil, S.A.	3A2	Pierre Anderhalt, 3A2CN, 41 Blvd. Jardin Exotique, Monaco - or Directeur Generale des Telecoms, 16 Blvd. de Suisse, Monte Carlo, Monaco, Europe
HC	Guayaquil Radio Club, P O Box 5757, Guayaquil, Ecuador, South America	PZ	Radio Clube Brasileiro RA-RH, P O Box 14630, Sao Paulo, SP, Brazil, South America	4S7	Radio Society of Ceylon, QSL Manager, P O Box 907, Colombo, Ceylon, Asia
HC1	Asociacion Radio Ecuatoriana, P O Box 289, Quito, Ecuador, South America	SK-SL-SM	SSA, 12207 Enskede 7, Sweden	4X4-4Z4	IARC, P O Box 4099, Tel Aviv, Israel
HH	Radio Club of Haiti, P O Box 943, Port-au-Prince, Haiti, West Indies	SP	PZK QSL Bureau, P O Box 320, Warsaw 1, Poland, Europe	5A	QSL Bureau, Box 372, Tripoli, Libya, North Africa
HI	Radio Club Dominicano, P O Box 1157, Santo Domingo, D.N., Dominican Republic, West Indies	SU	Ibrahim I Mohamed, SU1IM, 7 Roda St, El Roda, Cairo, Sudan, Africa	5H3	The RSEA QSL Bureau, P O Box 2387, Dar-Es-Salaam, Tanzania, East Africa
HK	LCRA, Liga Colombiana de Radio Aficionados, P O Box 584, Bogota, Colombia, South America	SV	George Zarifis, SV1AA, P O Box 564, Athens, Greece, Europe	5N2	Nigerian Amateur Radio Society, P O Box 2873, Lagos, Nigeria, Africa
HK4	For members only - Radio Club Antioquia, P O Box 2300, Medellin, Colombia, South America	SV0	QSL Bureau, c/o MARS Station, P O Box 3055, APO New York 09223 USA	5R8	QSL Bureau, P O Box 587, Tananarive, Madagascar, Africa
HL9	All HL9 stations - address with call letters, name and C/O Headquarters, U S Forces Korea, Attn: Director of Amateur Operations, APO San Francisco 96301, USA	TA-TC	Turkey Radyo Amatörleri Cemiyeti, P O Box 699, Karakoy, Istanbul, Turkey, Asia	5V	Via P O Box 33, Atakpame, Togo, West Africa
HM	KARL, Central Box 162, Seoul, Korea, Asia	TF	IRA, Islenskir Radio Amatörar, P O Box 1058, Reykjavik, Iceland, Europe	5W1	H E Betham, Director of Post Office & Radio, GPO, Apia, Western Samoa
HM	North Korea - QSL Bureau, P O Box 39, Pyongyang, North Korea, Asia	TF	For American amateurs, P O Box 22, WSNCS, FPO New York 09571 USA	5X5	The Uganda Amateur Radio Club QSL Bureau, P O Box 3433, Kampala, Uganda, East Africa
HP	LPRA QSL Bureau, P O Box 9A-175, Panama 9-A, Republic of Panama, Central America	TG	CRAG, P O Box 115, Guatemala City, Guatemala, C.A.	5Z4	The RSEA QSL Bureau, P O Box 30077, Nairobi, Kenya, East Africa
HR1-HR4	Radio Club Tegucigalpa, Box 149-C, Tegucigalpa, Honduras	TI	Radio Club of Costa Rica, P O Box 2412, San Jose, Costa Rica, Central America	60	Via P O Box 397, Mogadiscio, Somali Republic, Africa
HR2	QSL Bureau, Radio Club de Honduras, Apartado Postal 273, San Pedro Sula, Honduras	TN8	QSL Bureau, P O Box 2239, Brazzaville, Republic of Congo, Africa	6W8	REF, or P O Box 971, Dakar, Senegal, Africa
HR3-HR6	HR3FJI, Av 14 De Julio, 3 Calle, La Ceiba, Atlantida, Honduras	U	Central Radio Club, P O Box 88, Moscow, Russia, Europe	6Y5	Jamaica Amateur Radio Assn, Jamaica Red Cross, 76 Arnold St, Kingston 5, Jamaica, West Indies
HR5	HR5NLC, Santa Rosa de Copan, Copan, Honduras	VE1	L J Fader, VE1FQ, P O Box 663, Halifax, Nova Scotia, Canada	7G1	Central Radio Club, Box 69, Praha 1, Czechoslovakia
HS	STAR QSL Bureau, P O Box 2008, c/o GPO, Bangkok, Thailand, Asia	VE2	J Ravenscroft, VE2NV, 353 Thorncrest Av, Dorval, Quebec, Canada	7Q7	Via R MacFarlane, 7Q7RM, P O Box 472, Blantyre, Malawi
HV	Domenico Petti, HV1CN, Vatican City, Europe	VE3	Russ H Buckley, VE3UW, 20 Almont Road, Downsview, Ontario, Canada	7X	ARA QSL Service, Box 2, Alger, Algeria, Africa
HZ-7Z	Via HZ3TYQ, Victor L Crawford, P O Box 1721, Aramco, Dhahran, Saudi Arabia, Asia	VE4	D E McVittie, VE4OX, 647 Academy Road, Winnipeg 9, Manitoba, Canada	7Z	Via HZ3TYQ, Victor L Crawford, P O Box 1721, Aramco, Dhahran, Saudi Arabia, Asia
I	ARI, Viale V Veneto 12, Milano 401, Italy, Europe	VE5	VE5JL, A Lloyd Jones, 2328 Grant Rd, Regina, Saskatchewan, Canada	8P6	Amateur Radio Society of Barbados, Highgate Signal Stn, Flagstaff Rd, St. Michael, Barbados, Windward Is.
JA	JARL, Japanese Amateur Radio League, P O Box 377, Tokyo, Japan, Asia	VE6	K N Tettelaar, VE6AAV, Sub. P O 55, North Edmonton, Alberta, Canada	8R1	Cards may be sent direct
KA	FEARL(M), CMR Box 1414, APO San Francisco 96525	VE7	Henry R Hough, VE7HR, 1291 Simon Road, Victoria, British Columbia, Canada	9G1	Ghana Amateur Radio Society, P O Box 3773, Accra, Ghana, Africa
KC4AA	Office of Antarctic Programs, National Science Foundation, Washington, D.C. 20550, USA	VE8	George T Kondo, VE8RX, VE8 ARRL QSL Bureau, Dept. of Transport, Norman Wells, NWT, Canada	9H1	Robert F Galea, 9H1E, Casa Galea, Railway Road, Birkirkara, Malta, Europe
KC4US	c/o Commander, Antarctic Support Activities, FPO New York 09501	VK-VK0	WIA, Federal QSL Bureau, P O Box 41, Box Hill, Victoria 3128, Australia	9I-9J	Via Radio Society of Zambia, P O Box 332, Kitwe, Zambia, Africa
OR	c/o Kenneth W Nokes, 17 Island Park Rd, Ipswich, Mass. 01938	VK1-VK2	WIA QSL Bureau, P O Box 1734, GPO, Sydney, NSW 2001, Australia	9K2	Nasir H Khan, 9K2AN, Box 736, Kuwait, Asia
KC6	Caroline Islands cards are sent direct	VK3	QSL Bureau, E Trebilcock, 340 Gillies St, Thornbury, Victoria 3071, Australia	9L1	Radio Society of Sierra Leone, P O Box 907, Freetown, Sierra Leone, Africa
KG1	KG1AA through KG1EZ, MARS Director, KG1BX, 1983rd Comm. Sqdn, APO New York 09023, USA	VK4	QSL officer, VK4HR, Harry Scholz, 95 Stephen St, Morningside 4170, Brisbane, Queensland, Australia	9M2	MARTS, Box 777, Kuala Lumpur, Malaysia, Asia
	KG1FA through KG1HZ, MARS Director, KG1FR, 2004th Comm. Sqdn, APO New York 09121, USA	VK5-VK8	QSL Bureau, c/o George Luxon, VK5RX, 27 Belair Rd, Torrens Park, South Australia 5062	9M6-9M8	Via N Yatheendran, 9V1JY, 363 Woodlands Rd, Singapore 23, Asia
		VK6	QSL Bureau, c/o J Rumble, VK6RU, P O Box F319, GPO Perth, West Australia 6001	9Q5	UCRA QSL Bureau, P O Box 1459, Kinshasa, Dem. Rep. of Congo, Africa
		VK7	QSL Bureau, Box 371B, GPO, Hobart, Tasmania 7001, Australia	9U5	UCAR QSL Bureau, P O Box 3748, Elisabethville, Rep. of the Congo
				9V1	N Yatheendran, 9V1JY, 363 Woodlands Rd, Singapore 23, Asia
				9X5	RAR QSL Bureau, P O Box 663, Kigali, Rwanda, Africa
				9Y4	Les A Thomas, 9Y4LT, P O Box 1167, Port-of-Spain, Trinidad, South America

SAN FRANCISCO, CALIF.

The table below shows the great circle bearing in degrees from the point indicated above to countries throughout the world having licensed radio amateurs. Where cities are shown the bearing to the nearest degree is given. These bearings were compiled from information supplied by the U. S. Coast and Geodetic Survey.

PREFIX	COUNTRY	BEARING	PREFIX	COUNTRY	BEARING	PREFIX	COUNTRY	BEARING
A2C	BOTSWANA, MAFEKING	71	KS4	SWAN IS.	108	VQ8	CHAGOS IS.	337
AC3	SIKKIM	331	KS6	U S SAMOA	230		MAURITIUS & RODRIGUEZ IS.	9
AC4	TIBET, LHASA	331	KV4	VIRGIN IS.	94	VQ9	SEYCHELLES IS.	5
AC5	BHUTAN	329	KW6	WAKE IS.	275	VR1	GILBERT, ELLICE & OCEAN IS.	255
AP	PAKISTAN, KARACHI	351	KX6	MARSHALL IS.	263	VR2	FIJI IS.	237
BV	TAIWAN, TAIPEI	305	KZ5	CANAL ZONE	116	VR3	FANNING & LINE IS.	235
BY	CHINA, CHUNGKING	319	LA	NORWAY, OSLO	22	VR4	SOLOMON IS.	257
	PEKING	320		SVALBARD IS.	9	VR5	TONGA IS.	231
	SHANGHAI	310		JAN MAYEN IS.	20	VR6	PITCAIRN IS.	187
CE	CHILE, SANTIAGO	139	LU	ARGENTINA, BUENOS AIRES	132	VS5	BRUNEI	296
CE0A	EASTER IS.	167	LX	LUXEMBOURG	32	VS6	HONG KONG	310
CE0Z	JUAN FERNANDEZ IS.	145	LZ	BULGARIA, SOFIA	25	VU	INDIA, BOMBAY	343
CM,CO	CUBA, HAVANA	101	M1	SAN MARINO	31		CALCUTTA	329
CN	MOROCCO, CASABLANCA	49	MP4	MUSCAT & OMAN, MASQAT	8		NEW DELHI	342
CP	BOLIVIA, LA PAZ	126	OA	PERU, LIMA	130	VU4	LACCADIVE IS.	342
CR3	PORTUGUESE GUINEA	71	OD5	LEBANON, BEIRUT	20	VU5	ANDAMAN & NICOBAR IS.	320
CR4	CAPE VERDE IS.	73	OE	AUSTRIA, VIENNA	28	XE,XF	MEXICO, MEXICO CITY	126
CR6	ANGOLA, NOVA LISBOA	68	OH	FINLAND, HELSINKI	16	XE4	REVILLAGIGEDO IS.	149
CR7	MOZAMBIQUE, LOURENCO MARQUES	69	OH0	ALAND IS.	18	XW8	LAOS	316
	MOZAMBIQUE	40	OK,OL	CZECHOSLOVAKIA, PRAGUE	26	XZ	BURMA, RANGOON	319
CR8	GOA	342	ON	BELGIUM, BRUSSELS	31	YA	AFGHANISTAN, KANDAHAR	3
CR8	TIMOR IS.	275	OX	GREENLAND, GODTHAAB	34	YI	IRAQ, BAGHDAD	12
CR9	MACAO	308	OY	FAEROES IS.	28	YJ	NEW HEBRIDES, VILLA	243
CT1	PORTUGAL, LISBON	47	OZ	DENMARK, COPENHAGEN	24	YK	SYRIA	17
CT2	AZORES IS.	56	PA,PE,PI	NETHERLANDS, AMSTERDAM	30	YN	NICARAGUA, MANAGUA	119
CT3	MADEIRA IS.	56	PJ	NETHERLANDS ANTILLES	103	YO	RUMANIA, BUCHAREST	23
CX	URUGUAY, MONTEVIDEO	131	PJ2M	SINT MAARTEN	94	YS	EL SALVADOR, SAN SALVADOR	121
DC,DJ,DK	WEST GERMAN FEDERAL REP, BONN	030	PX1	ANDORRA	39	YU	YUGOSLAVIA, BELGRADE	26
DM	E. GERMAN DEMOCRATIC REP, BERLIN	026	PY	BRAZIL, BRASILIA	112	YV	VENEZUELA, CARACAS	104
DU	PHILIPPINES, MANILA	298		RIO DE JANEIRO	115	ZA	ALBANIA, TIRANA	29
EA	SPAIN, MADRID	42		NATAL	97	ZB2	GIBRALTAR	46
EA6	BALEARIC IS.	40	PY0	TRINIDADE & MARTIM VAZ IS.	104	ZC4	CYPRUS	21
EA8	CANARY IS.	58	PZ	SURINAM	100	ZD3	GAMBIA	71
EA9	SPANISH SAHARA	47	SK,SL,SM	SWEDEN, STOCKHOLM	19	ZD5	SWAZILAND	72
EA0	RIO MUNI	58	SP	POLAND, WARSAW	22	ZD7	SAINT HELENA	89
EI	IRELAND, DUBLIN	34	ST	SUDAN, KHARTOUM	30	ZD8	ASCENSION IS.	87
EL,5L	LIBERIA, MONROVIA	72	SU	EGYPT, CAIRO	24	ZD9	TRISTAN DA CUNHA & GOUGH IS.	114
EP	IRAN, TEHRAN	6	SV	GREECE, ATHENS	27	ZE	SOUTHERN RHODESIA, SALISBURY	58
ET3	ETHIOPIA, ADDIS ABABA	25	SV5	DODECANESE IS.	25	ZK1	COOK IS.	223
	ASMARA	22	TA,TC	TURKEY, ANKARA	20	ZK2	NIUE IS.	228
F	FRANCE, PARIS	33	TF	ICELAND, REYKJAVIK	30	ZL1	NEW ZEALAND, AUCKLAND	226
FB8	AMSTERDAM AND ST. PAUL IS.	264	TG	GUATEMALA, GUATEMALA CITY	121	ZL2	WELLINGTON	224
	KERGUELEN IS.	212	TI	COSTA RICA	119	ZL3	CHRISTCHURCH	223
FC	CORSICA	34	TJ	CAMEROON, YACUNDE	55	ZL4	DUNEDIN	222
FG7	GUADELOUPE	95	TL8	CENTRAL AFRICAN REP, BANGUI	50	ZP	PARAGUAY, ASUNCION	125
FH8	CCMORO IS.	30	TN8	REPUBLIC OF CONGO, BRAZZAVILLE	50	ZS	SOUTH AFRICA, CAPE TOWN	95
FK8	NEW CALEDONIA, NOUMEA	240	TR8	GABON, LIBREVILLE	61		DURBAN	79
FL8	FRENCH SOMALILAND, DJIBOUTI	19	TT8	CHAD, FT. LAMY	47		JOHANNESBURG	74
FM7	MARTINIQUE	96	TU2	IVORY COAST, ABIDJAN	67	ZS2	PRINCE EDWARD & MARION IS.	128
FO8	FRENCH POLYNESIA, TAHITI	209	TZ	MALI REPUBLIC, BAMAKO	65	ZS3	SOUTH-WEST AFRICA, WINDHOEK	79
	CLIPPERTON IS.	153	UA1	SOVIET UNION, MOSCOW	22	3A	MONACO	35
FP8	ST. PIERRE & MIQUELON IS.	57	UA9,0	ASIATIC RUSSIAN S.F.S.R.	335	3V8	TUNISIA, TUNIS	37
FR7	REUNION IS.	9	UB5	UKRAINIAN S.S.R.	16	3W8	VIETNAM, SAIGON	305
FS7	SAINT MARTIN IS.	94	UC2	WHITE RUSSIAN S.S.R.	18	4S7	CEYLON, COLOMBO	330
FU8	NEW HEBRIDES, VILA	243	UD6	AZERBAIDZHAN S.S.R.	8	4W1	YEMEN	16
FW8	WALLIS & FUTUNA IS.	236	UF6	GEORGIAN S.S.R.	13	4X4,4Z4	ISRAEL	21
FY7	FRENCH GUIANA, CAYENNE	99	UG6	ARMENIAN S.S.R.	10	5A	LIBYA, TRIPOLI	37
G	ENGLAND, LONDON	33	UH8	TURKMEN S.S.R.	3	5H3	TANZANIA, DAR ES SALAAM	35
GC	CHANNEL IS.	36	UI8	UZBEK S.S.R.	354	5N2	NIGERIA, LAGOS	62
GD	ISLE OF MAN	33	UJ8	TADZHIK S.S.R.	350	5R8	MALAGASY REPUBLIC, TANANARIVE	29
GI	NORTHERN IRELAND, BELFAST	34	UL7	KAZAKH S.S.R.	350	5T5	MAURITANIA, NGAOKHOTI	66
GM	SCOTLAND, GLASGOW	31	UM8	KIRGHIZ S.S.R.	351	5U7	NIGER, NIAMEY	57
GW	WALES	34	UN1	KARELO-FINNISH S.S.R.	12	5V	TOGO	62
HA,HG	HUNGARY, BUDAPEST	26	UO5	MOLDAVIAN S.S.R.	21	5W1	WESTERN SAMOA	237
HB	SWITZERLAND, BERN	32	UP	LITHUANIAN S.S.R.	19	5X5	UGANDA	38
HB0	LIECHTENSTEIN	31	UQ	LATVIAN S.S.R.	18	5Z4	KENYA, NAIROBI	34
HC	ECUADOR, QUITO	123	UR	ESTONIAN S.S.R.	17	60	SOMALI REPUBLIC, MOGADISHU	19
HC8	GALAPAGOS IS.	137	VE1	CANADA, HALIFAX	62	6W8	SENEGAL, DAKAR	70
HH	HAITI, PORT-AU-PRINCE	100	VE2	MONTREAL	62	6Y5	JAMAICA	105
HI	DOMINICAN REP, SANTO DOMINGO	98	VE3	TORONTO	66	7G1	REPUBLIC OF GUINEA, CONAKRY	71
HK	COLOMBIA, BOGOTA	115	VE4	WINNIPEG	48	70	SOUTH YEMEN, ADEN	15
HK0	SAN ANDRES & PROVIDENCIA IS.	113	VE5	SASKATOON	33	7P8	LESOTHO	81
HM,HL9	KOREA, SEOUL	311	VE6	EDMONTON	18	7Q7	MALAWI, ZOMBA	50
HP	PANAMA	116	VE7	VANCOUVER	359	7X	ALGERIA, ALGIERS	41
HR	HONDURAS, TEGUCIGALPA	118	VE8	FORT NELSON	360	7Z,HZ	SAUDI ARABIA, MECCA	19
HS	THAILAND, BANGKOK	312	VK1	AUSTRALIA, CANBERRA	240	8F1,2,3	JAVA, BATAVIA	291
HV	VATICAN CITY	32	VK2	SYDNEY	240	8F4	SUMATRA	300
I	ITALY, ROME	32	VK3	MELBOURNE	239	8F5	BORNEO	290
	TRIESTE	29	VK4	BRISBANE	244	8F6	CELEBES & MOLUCCA IS.	285
IS	SARDINIA	35	VK5	ADELAIDE		8P6	BARBADOS	97
IT	SICILY	33	VK6	PERTH	259	8R	GUYANA, GEORGETOWN	102
JA,JH	JAPAN, TOKYO	303	VK7	TASMANIA, HOBART	234	9G1	GHANA, ACCRA	66
JT1	MONGOLIA, ULAN BATOR	329	VK8	DARWIN	268	9H1	MALTA	35
JY	JORDAN	19	VK9	NORFOLK IS.	235	9I,9J	ZAMBIA, LUSAKA	58
JZ0	WEST IRIAN	273		NEW GUINEA, PAPUA, PORT MORESBY	266	9K2	KUWAIT	9
KB6	BAKER IS.	246	VK0	HEARD IS.	209	9L1	SIERRA LEONE, FREETOWN	72
KC4	NAVASSA IS.	102		MACQUARIE IS.	218	9M2	FEDERATION OF MALAYSIA	306
KC6	CAROLINE IS.	275	VO1	NEWFOUNDLAND, ST JOHNS	55	9M6	SABAH, NORTH BORNEO	294
KG4	GUANTANAMO BAY, CUBA	100	VO2	LABRADOR, HOPEDALE	46	9M8	SARAWAK	294
KG6	MARIANAS IS, GUAM	287	VP1	BRITISH HONDURAS	116	9N1	NEPAL, KATMANDU	334
KG6I	VOLCANO IS.	293	VP2	ANTIGUA	94	9Q5	REP. OF THE CONGO, KINSHASA	61
KG6S	SAIPAN IS.	282	VP5	TURKS & CAICOS IS.	95		LUBUMBASHI	55
KH6	HAWAII, HONOLULU	252	VP7	BAHAMA IS.	97		KISANGANI	47
KL7	ALASKA, ANCHORAGE	333	VP8	FALKLAND IS.	145	9U5	BURUNDI	43
	FAIRBANKS	340		SOUTH GEORGIA IS.	140	9V1	SINGAPORE	301
KM6	MIDWAY IS.	275		SOUTH ORKNEY IS.	149	9X5	RWANDA	43
KP4	PUERTO RICO	96	VP9	BERMUDA IS.	79	9Y4	TRINIDAD & TOBAGO IS.	100
KR6,8	RYUKYU IS, OKINAWA	302	VQ1	ZANZIBAR	34			

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☐ Door or rig	☐ Walnut Grained ☐ Jet Black	☐ All letters same size ☐ Large letters over small ☐ Small letters over large	☐ 1"x4" ☐ 1"x7" ☐ 2"x8"	
☐ Exec. Desk Set	☐ Walnut Grained ☐ Jet Black	☐ All letters same size ☐ Large letters over small ☐ Small letters over large		☐ Gold ☐ Silver
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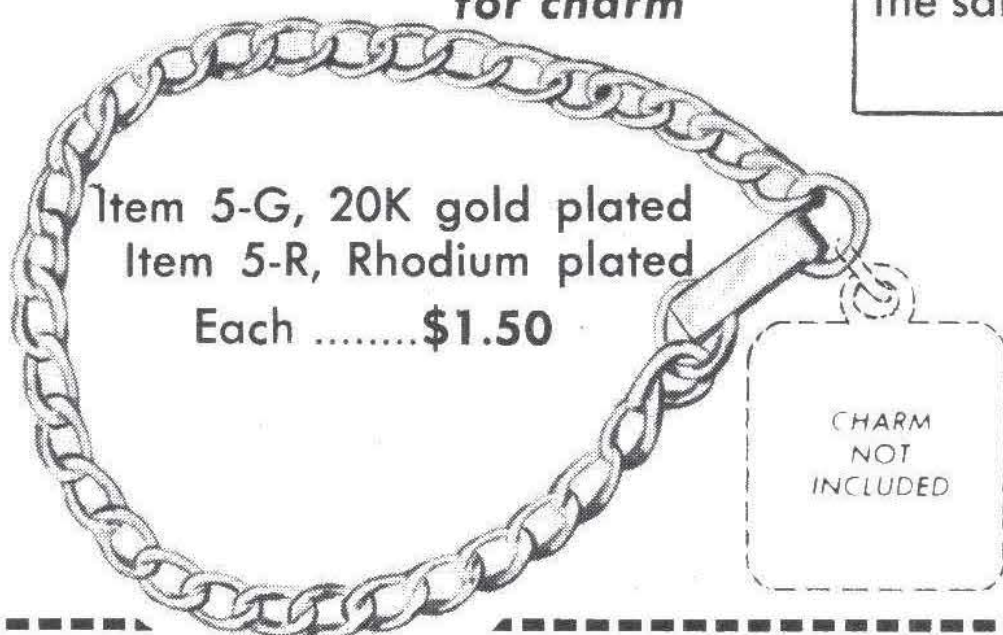


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for charm

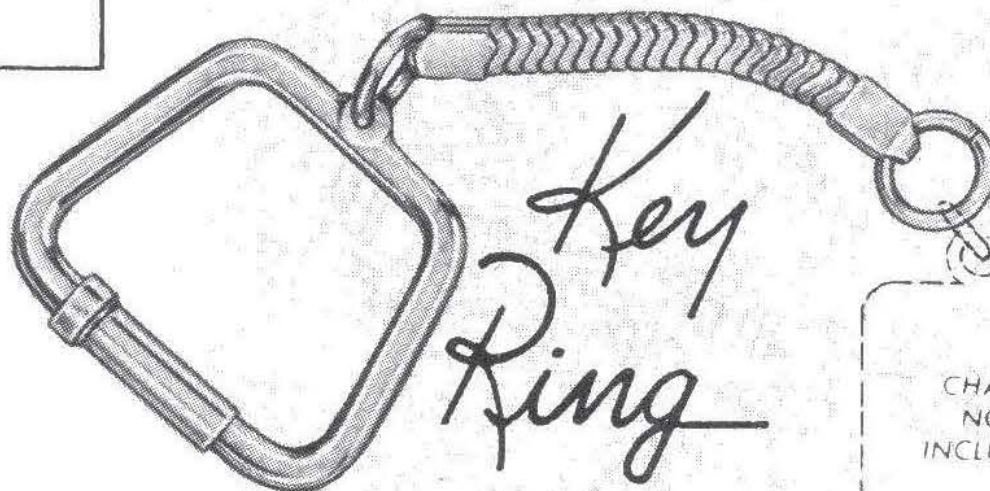
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for charm

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CHARM
NOT
INCLUDED

I am Pegasus

... according to legend,
winged and with blazing hoofs,
mane flying, crossed the heavens with such speed I caused the
crash of lightning and the roar of thunder.

Of course, this is a myth, but what an exciting thought—to
race across the heavens with the speed legend gave me.
Naturally it's really impossible for me to have accomplished
such a feat but not for you ... a radio amateur.

You can reach the corners of the world ... with a turn of a
knob you can cross the heavens—the whole world is yours
... adventure is yours.

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history of adventure, as part of amateur radio.

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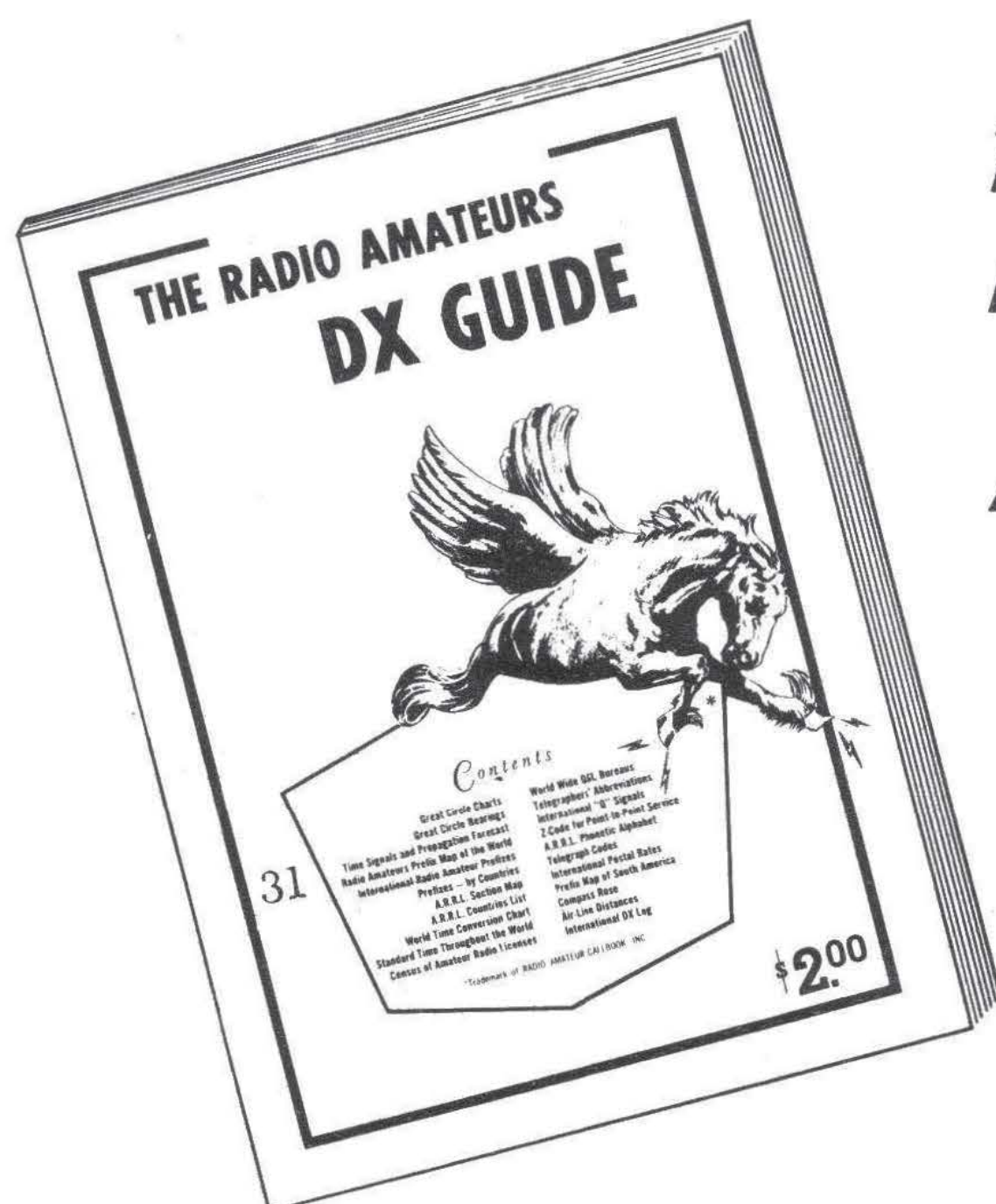
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INTERNATIONAL DX LOG — prefixes of all countries that qualify for DXCC. Ample space provided to make a permanent record of all DX stations worked; showing date, call letters, frequency and whether a QSL card has been sent or received.

WORLD MAP SHOWING RADIO AMATEUR PREFIXES — an outstanding map, 15" x 10".

GREAT CIRCLE MAPS — centered on New York City, San Francisco, Calif., Seattle, Wash., Washington, D.C., and the center of the United States.

GREAT CIRCLE OUTLINE CHART OF THE UNITED STATES — determine the great circle bearing between any two points in the United States with this map.

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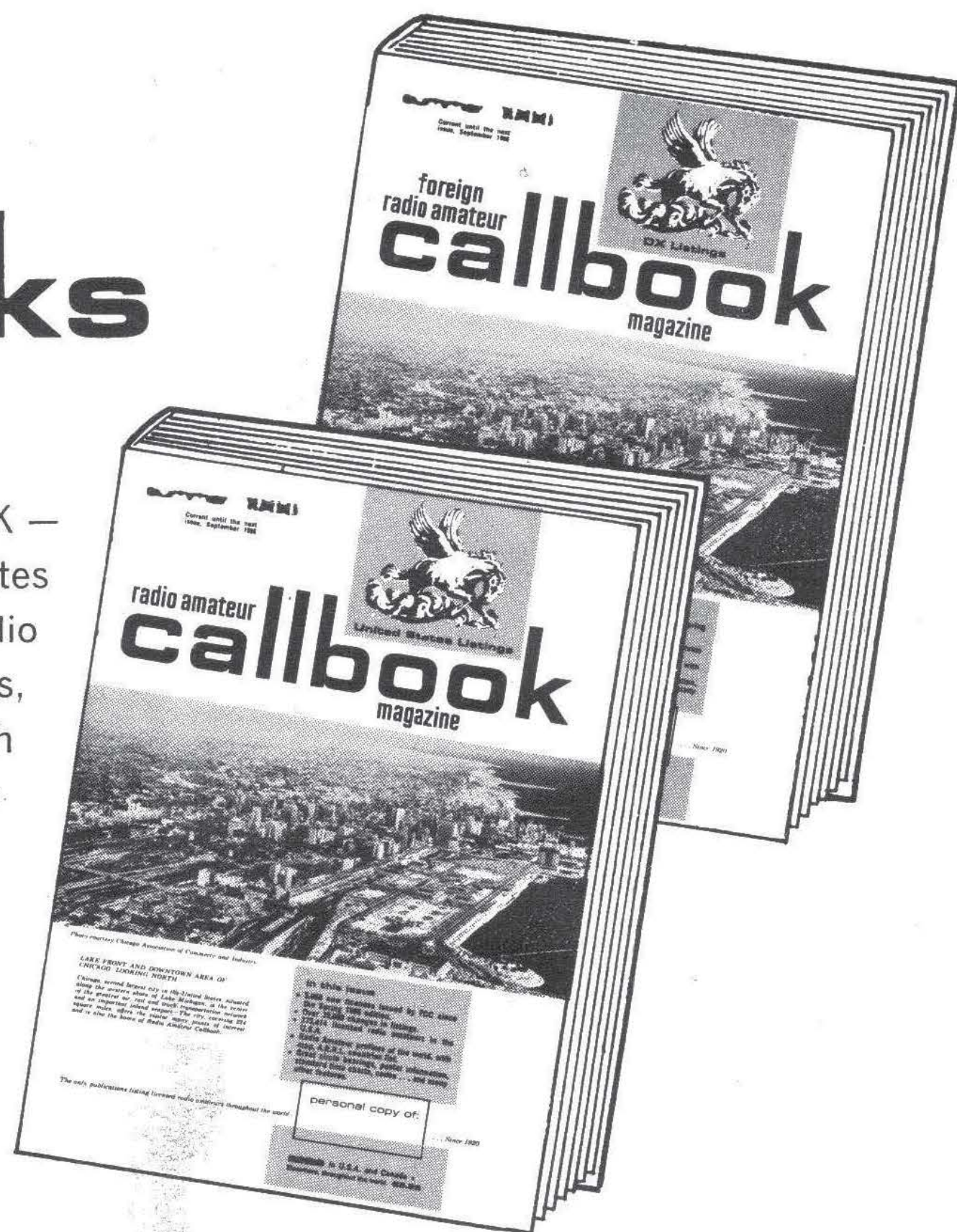
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